



Republika Srbija

MINISTARSTVO ENERGETIKE,
RAZVOJA I ZAŠTITE ŽIVOTNE SREDINE

Program
Ujedinjenih nacija
za razvoj



*Empowered lives.
Resilient nations.*

CONSTRUCTION OF PLANTS AND ELECTRICITY GENERATION IN SOLAR POWER PLANTS IN THE REPUBLIC OF SERBIA

Guide for Investors

IZGRADNJA POSTROJENJA I PROIZVODNJA ELEKTRIČNE ENERGIJE U SOLARNIM ELEKTRANAMA U REPUBLICI SRBIJI

Vodič za investitore

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Authors:

Bojan Lazarevic, BSc El. Eng.

Branislava Lepotic Kovacevic, PhD Law

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Autori:

Bojan Lazarević, dipl. el. inž.

Dr Branislava Lepotić Kovačević, dipl. prav.

Uz podršku: Programa Ujedinjenih nacija za razvoj

English

Srpski



**CONSTRUCTION OF PLANTS AND
ELECTRICITY GENERATION IN SOLAR POWER
PLANTS IN THE REPUBLIC OF SERBIA**
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Guide for Investors

Foreword	7
Solar Power Plants	9
Solar Energy Potential in the Republic of Serbia	9
Solar Power Plants	10
Sources of Law	
Power Plant Classification	11
Relevant Regulations	11
Competent Institutions	12
Basic Steps from the Idea to the Operation of a Power Plant	12
I Acquiring the Right to Construct a Power Plant	13
I-1 Selection of the Location, Perusal of Valid Planning Documents and Information on Location	14
I-2 Energy Permit	15
I-2 Obtaining the Energy Permit	16
I-3 Location Permit	17
I-3 Requirements for Connection	18
I-3 Forming the Building Plot	19
I-3 Allotment/Reallotment	20
I-3 Water Documents	21
I-3 Water Requirements	21
I-3 Obtaining the Location Permit	22
I-4 Construction Permit	23
I-4 Environmental Impact Assessment	24
I-4 Technical Documentation	27
I-4 Water Approval and Technical Review of the Main Design	28
I-4 Obtaining the Construction Permit	29
I-5 Operation Permit	30
I-5 Construction of the Structure	31
I-5 Technical Inspection and Operation Permit	33
II Acquiring the Right to Engage in the Activity of Electricity Generation	34
II-1 Concession	35
II-1 Contents of the Concession Agreement	36
II-2 License	37
II-3 Connection of the Power Plant to Electric Power Grid	38
II-4 Privileged Electricity Producer Status	39
II-4 Obtaining the Privileged Electricity Producer Status	40
II-5 Electricity Purchase Contract	41
Special Cases of Construction of Solar Collectors and Solar Cells	42
Guarantees of Origin	42

Foreword

Serbia's significant renewable energy potential is still not sufficiently exploited due to a number of reasons that cause a lack of investment activity in renewable energy sector. The Government of the Republic of Serbia has recently accepted the Decision of the Ministerial Council of Energy Community on the promotion of the use of renewable energy by means of transposition of the EU Directive 2009/28/EC on renewable energy. This decision sets an ambitious goal for Serbia to increase the share of renewable energy in gross final energy consumption to 27% by 2020, with respect to baseline of 21.2% in 2009, which will lead to intensive investment activities in the sector in the forthcoming period.

Based on the Agreement for the provision of support services with the Ministry of Energy, Development and Environmental Protection under the auspices of the "Policy Advice on Renewable Energy Sources" project, in 2012 UNDP Serbia focused on promoting investments in renewable energy sector by updating and revising four existing, yet outdated, guides for investors in renewable energy facilities and by elaborating two new guides:

- CONSTRUCTION OF PLANTS AND ELECTRICITY/HEAT GENERATION FROM BIOMASS IN THE REPUBLIC OF SERBIA
 - CONSTRUCTION OF PLANTS AND ELECTRICITY GENERATION IN SMALL HYDROPOWER PLANTS IN THE REPUBLIC OF SERBIA
 - CONSTRUCTION OF PLANTS AND ELECTRICITY GENERATION IN WIND POWER PLANTS IN THE REPUBLIC OF SERBIA
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- **CONSTRUCTION OF PLANTS AND ELECTRICITY/HEAT GENERATION FROM HYDRO-GEOTHERMAL SOURCES IN THE REPUBLIC OF SERBIA**
 - **CONSTRUCTION OF PLANTS AND ELECTRICITY GENERATION IN SOLAR POWER PLANTS IN THE REPUBLIC OF SERBIA**
 - **CONSTRUCTION OF THE SOLAR HEATING SYSTEMS IN THE REPUBLIC OF SERBIA**

All guides, with the exception of one, are bilingual and exist in two versions. Six elaborated guides describe in details very complex and comprehensive procedure for constructing energy facilities and performing economic activity of energy generation from renewable sources. The detailed guides are intended primarily for investors and project developers, but also for officials in different competent institutions since the legal procedure is typically cross-sectoral. In five less detailed guides the comprehensive matter is described in a simple and illustrative manner with an idea to bring it closer to the wide range of stakeholders.

The objective of the guides is to encourage and assist the investors interested in Serbian renewable energy sector, but also to identify through a thorough analysis weaknesses and inconsistencies of the legal procedure and to encourage competent institutions to perform legal and institutional improvements. We sincerely hope that the guides will trigger constructive dialogue between numerous stakeholders and thus contribute to their better awareness and mutual understanding, which should ultimately result in favourable environment for investments in renewable energy.

Solar Power Plants

- Energy facilities for performing energy-related activity of electricity generation from the solar radiation potential
 - They operate on the principle of photovoltaic effect, where under the influence of solar radiation dc voltage and current are generated in the solar cells
 - If in the process of electricity generation in the individual production facility uses non-accumulated solar energy and if certain conditions are fulfilled, such facilities may acquire the privileged electricity producer status.
-

Note

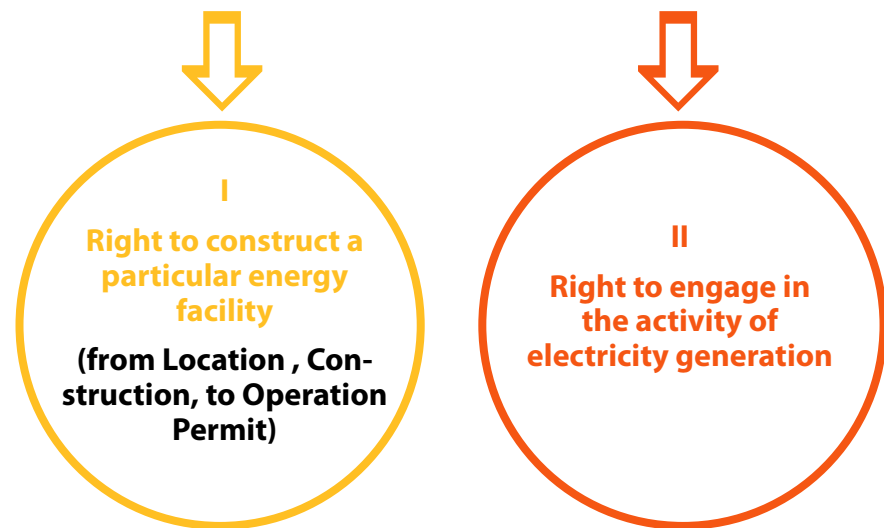
It should be underlined that this Guide refers to solar power plants in general and that it describes procedures towards competent authorities and institutions, but that certain elements of these procedures, as well as enforcement of certain procedures depends on the size of the structure, site where the structure is constructed, specific power generation technology and other characteristics of the structure.

Solar Energy Potential in the Republic of Serbia

- Solar energy accounts for 15% of the total usable potential of renewable energy sources in Serbia
- Average solar radiation in Serbia is higher than the European average, but in spite of that utilization of the solar energy for the electricity generation lags by far behind the EU countries
- The energy potential of the solar radiation in Serbia is higher than in the Central Europe for about 30%, and the intensity of solar radiation is among the highest ones in Europe.
- Average value of the global solar radiation for the territory of Germany amounts to approx. 1000 kWh/m², while the value for Serbia ranges about 1400 kWh/m²

Solar Power Plants - Sources of Law

Investor should acquire the following rights:



Power Plant Classification

- **Energy Law**
 - power plants using renewable energy sources
 - Rulebook on Criteria for Issuing Energy Permit, Contents of Application and Procedures of Issuing Energy Permit
- **Structures for electricity generation, rated capacity from 1 to 10 MW**
 - Structures for electricity generation, rated capacity over 10 MW
- **Law on Planning and Construction**
 - power plants producing energy from renewable energy sources – jurisdiction of the Ministry in charge of civil engineering affairs, or the Autonomous Province
- **Decree on Requirements for Obtaining Privileged Electricity Producer Status**
 - Power plants using in their production process the solar energy – roof mounted
 - Power plants using in their production process the solar energy – ground mounted

Power Plant Classification

- **Decree on the List of Projects for which Environmental Impact Assessment (EIA) Study is mandatory and the List of Projects for which EIA Study may be required, makes the following distinction:**
 - Plants having or exceeding the capacity of 50 MW (List I) – for which the Environmental Impact Assessment Study is mandatory, and
 - Plants having the capacity of 1 - 50 MW (List II) – for which the Environmental Impact Assessment Study may be required. Exceptionally, for power plants of capacity under 1 MW the impact assessment study may be required if these power plants will be constructed in a protected cultural asset or in the protected environs of outstanding cultural assets and in other areas for special use
-

Relevant Legislation

- Energy Law (Official Gazette of the RoS, Nos. 57/11, 80/11, 93/12 and 124/12)
- Decision on the Energy Sector Development Strategy of the Republic of Serbia by 2015 (Official Gazette of the RoS, No. 44/05)
- Decree on the Implementation Program of the Energy Sector Development Strategy of the Republic of Serbia by 2015 for the Period from 2007-2012 (Official Gazette of the RoS, Nos. 17/07, 73/07, 99/09 and 27/10)
- Law on Planning and Construction (Official Gazette of the RoS, Nos. 72/09, 81/09, 24/11) and 121/12
- Law on the Spatial Plan of the Republic of Serbia from 2010 to 2020 (Official Gazette of the RoS, No. 88/10).
- Law on Environmental Protection (Official Gazette of the RoS, Nos. 135/04 and 36/09)
- Law on Waters (Official Gazette of the RoS, No. 30/10 and 93/12)
- Law on Forests (Official Gazette of the RoS, No. 30/20 and 93/12)
- Law on Environmental Impact Assessment (Official Gazette of the RoS, Nos. 135/04 and 36/09)
- and other laws and bylaws...

Competent Institutions

- Ministry of Energy, Development and Environmental Protection – MEDEP
 - Local self-government unit - LSU
 - Energy Agency - EA
 - Republic Geodetic Authority - RGA
 - Ministry of Agriculture, Forestry and Water Management – MAFWM
 - Ministry of Natural Resources, Mining and Spatial Planning - MNRMSP
 - Republic Hydro-Meteorological Service - RHMS
 - Electric Power Grid of Serbia- EPGS
 - Electric Power Industry of Serbia- EPS
 - and other institutions relevant in the specific case
-

Basic Steps From the Idea to the Use of Power Plant

I Acquiring

- the right to construct a power plant

II Acquiring

- the right to engage in the activity of electricity generation

Basic Steps from Idea to Operation of a Power Plant

Acquiring the Right to Construct a Power Plant

I-1 Obtaining Information on Location

I-2 Obtaining Energy Permit

Preparation of Pre-feasibility Study with the General Design

Resolving of Property Right Relations / Allotment and Re-allotment

Collection of Conditions for Designing

I-3 Obtaining Location Permit*

Preparation of Pre-feasibility Study with Conceptual Design / Main Design

Elaboration of Environmental Impact Assessment Study

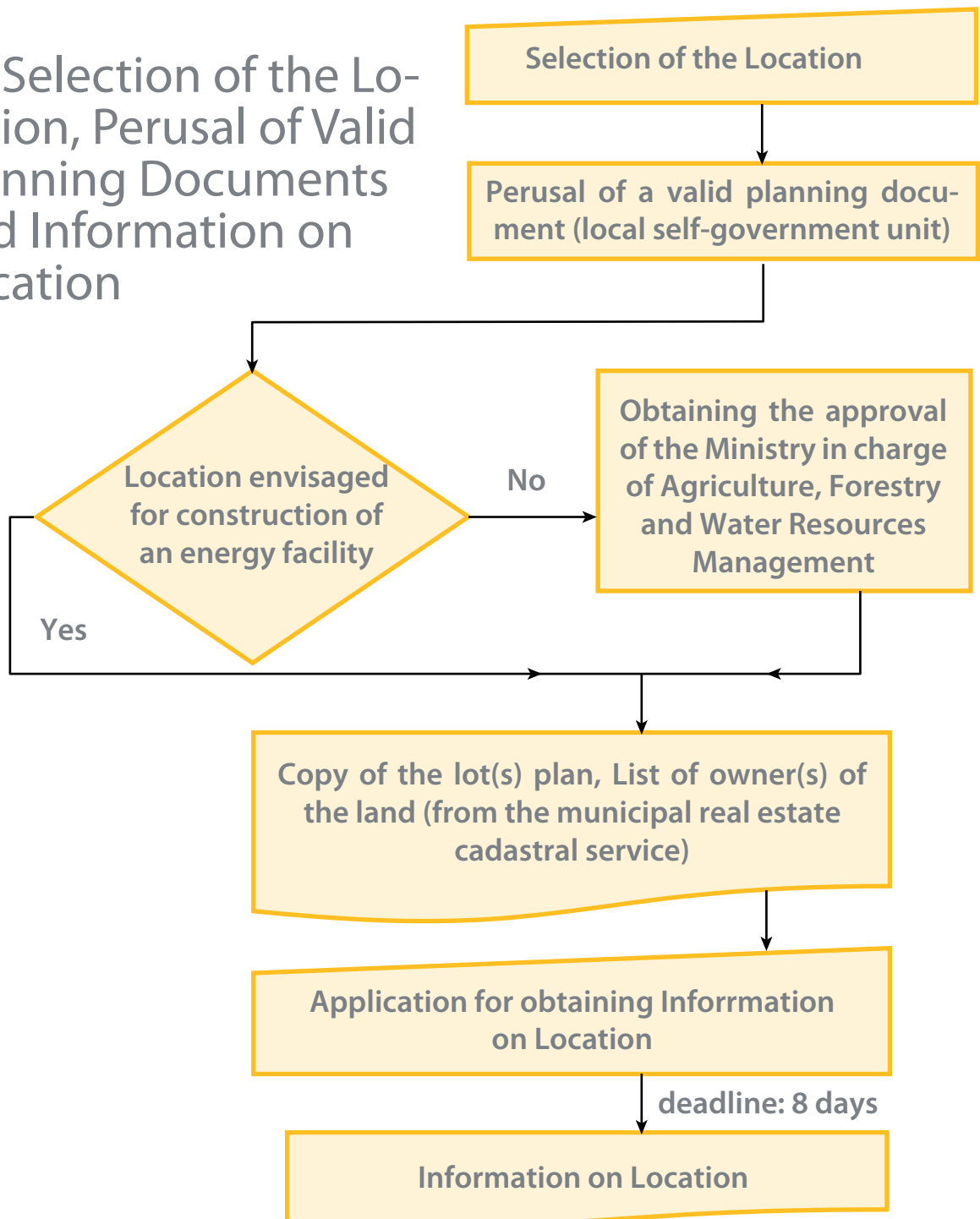
I-4 Obtaining Construction Permit

Construction of the Facility

I-5 Obtaining Water Permit and Operation Permit

**can be carried out before or after obtaining Energy Permit*

I-1 Selection of the Location, Perusal of Valid Planning Documents and Information on Location

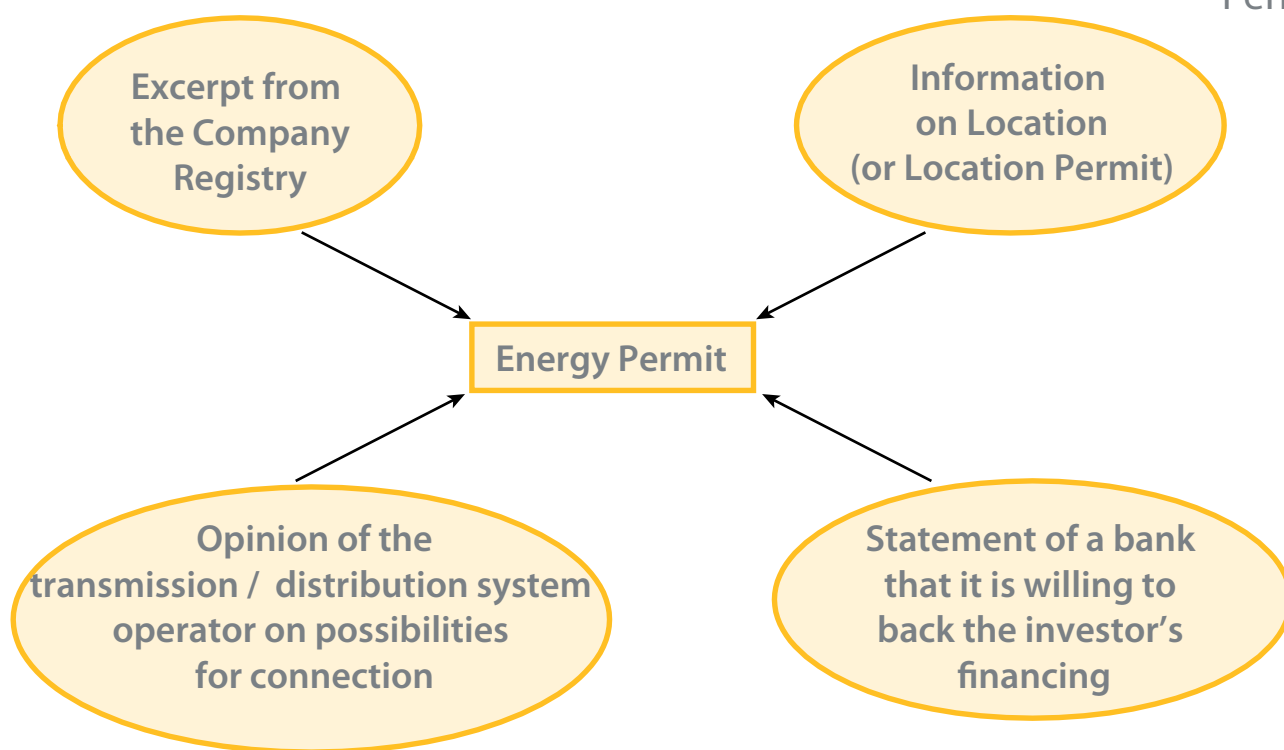


Note

Analysis and selection of the potential location for the construction of a power plant are the first step, significantly affecting the preparation of technical documentation for the construction of power plant

I-2

Energy Permit

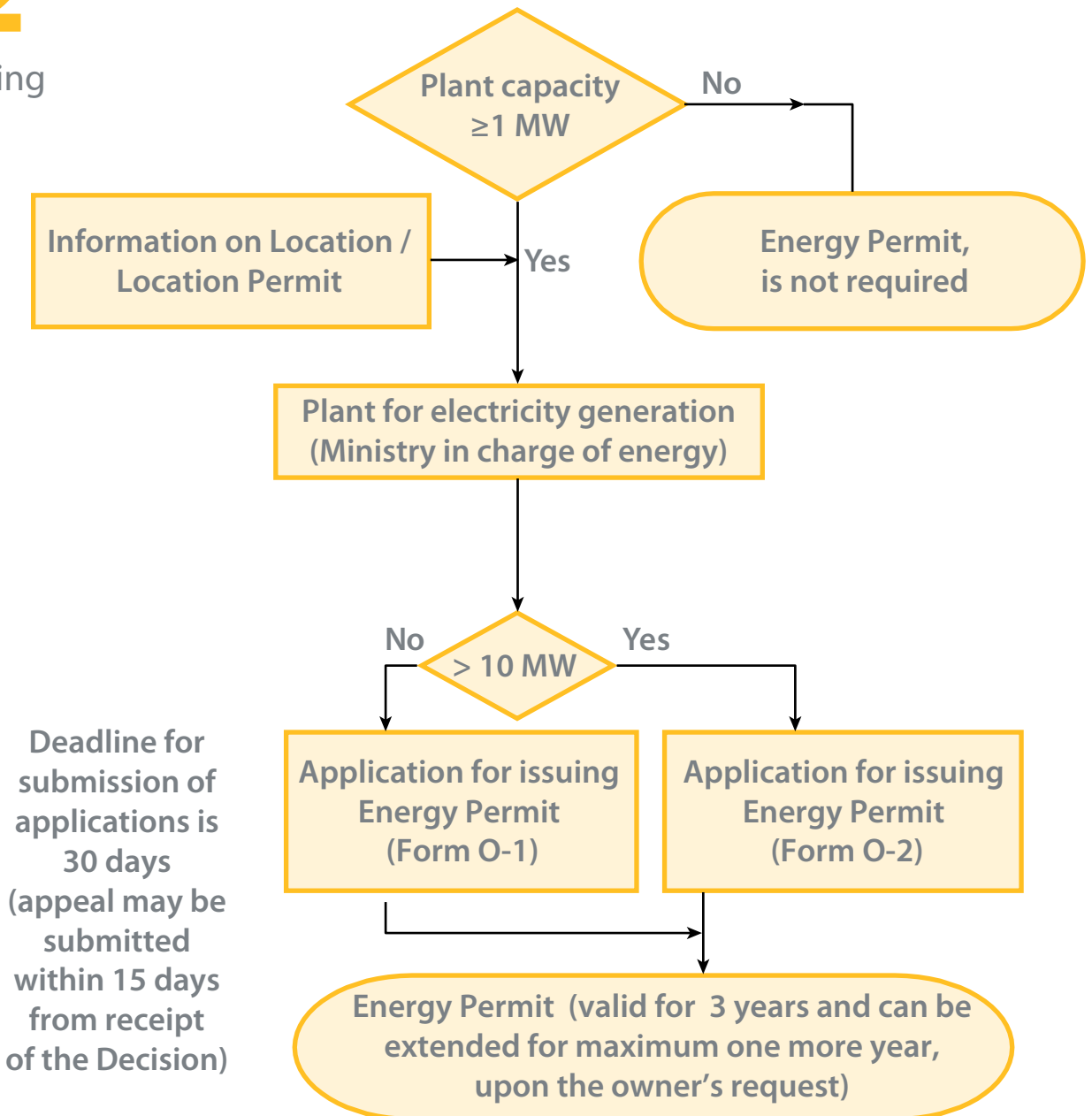


- Energy Permit is a document required for obtaining the Construction Permit, prescribed by the Energy Law
- For solar power plants of capacity up to 1 MW Energy Permit should not be obtained

Note

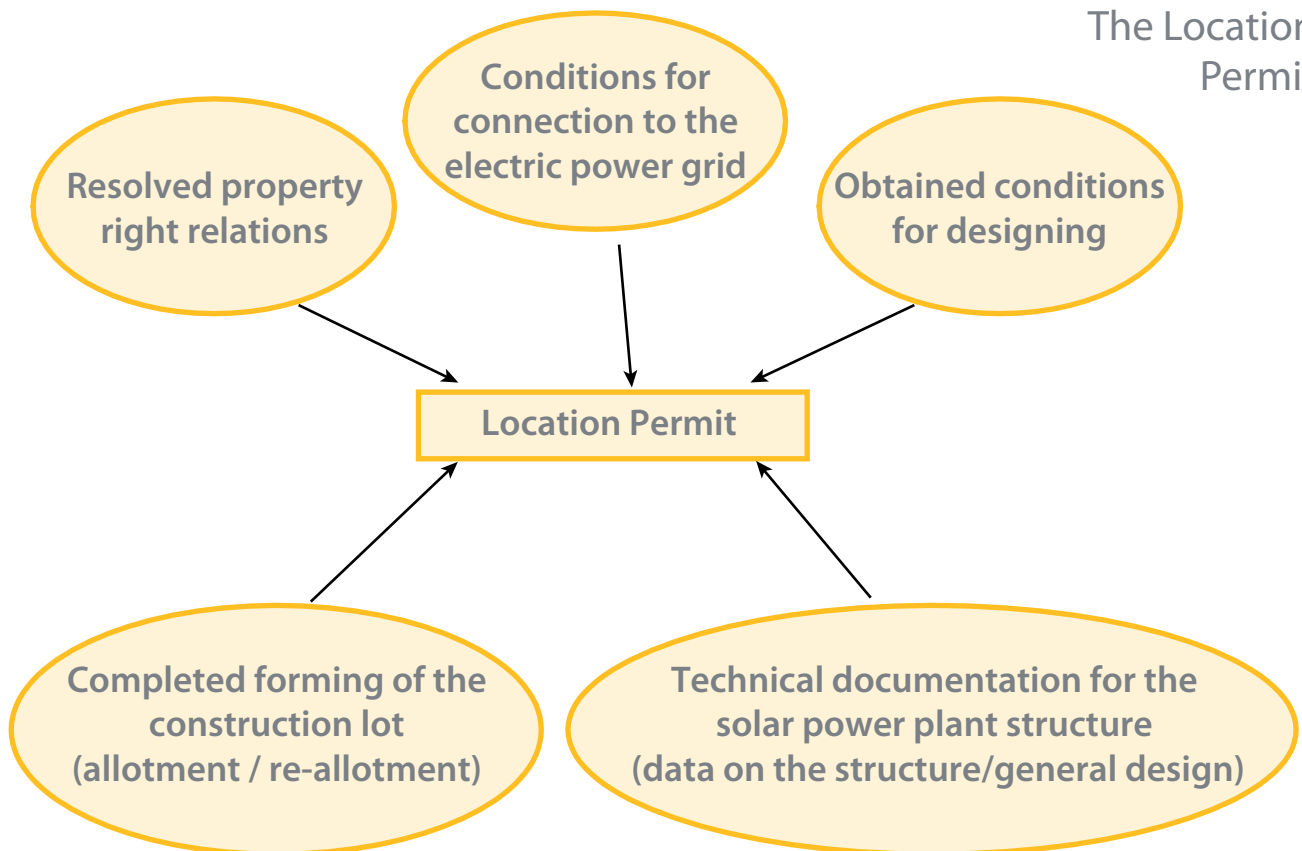
I-2

Obtaining Energy Permit



I-3

The Location Permit

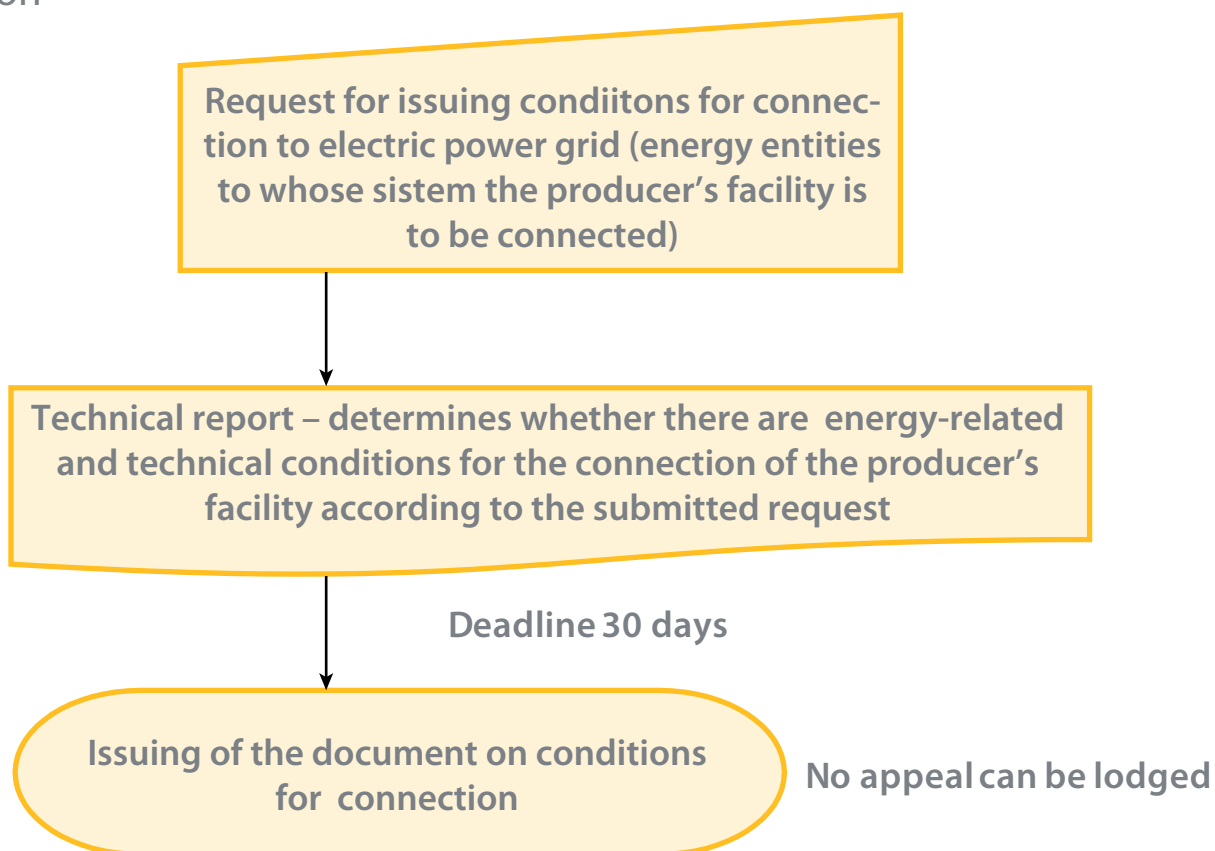


Location Permit contains all conditions and data required for the preparation of technical documentation, Main Design, all in compliance with the valid planning document

Note

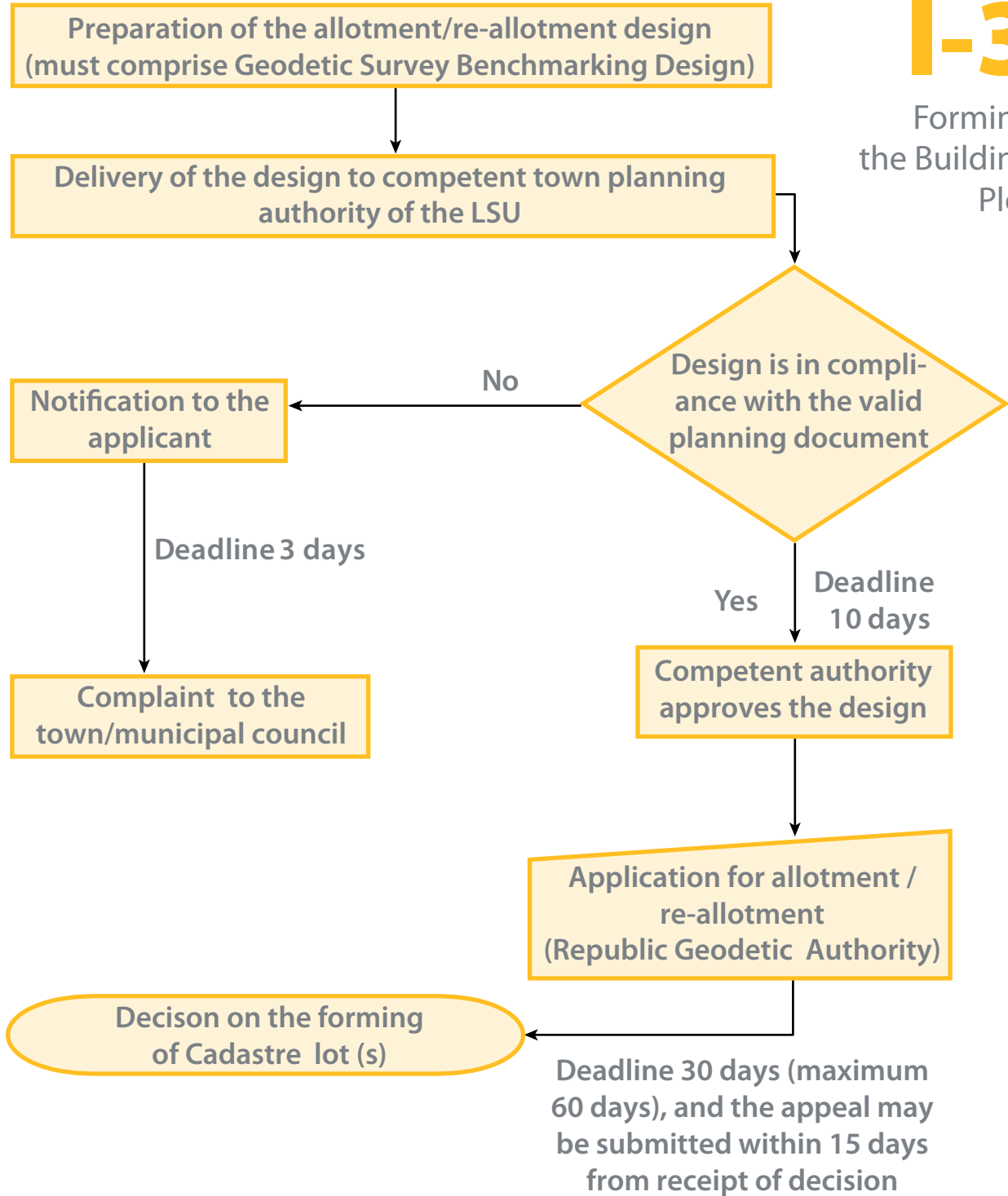
I-3

Conditions for Connection



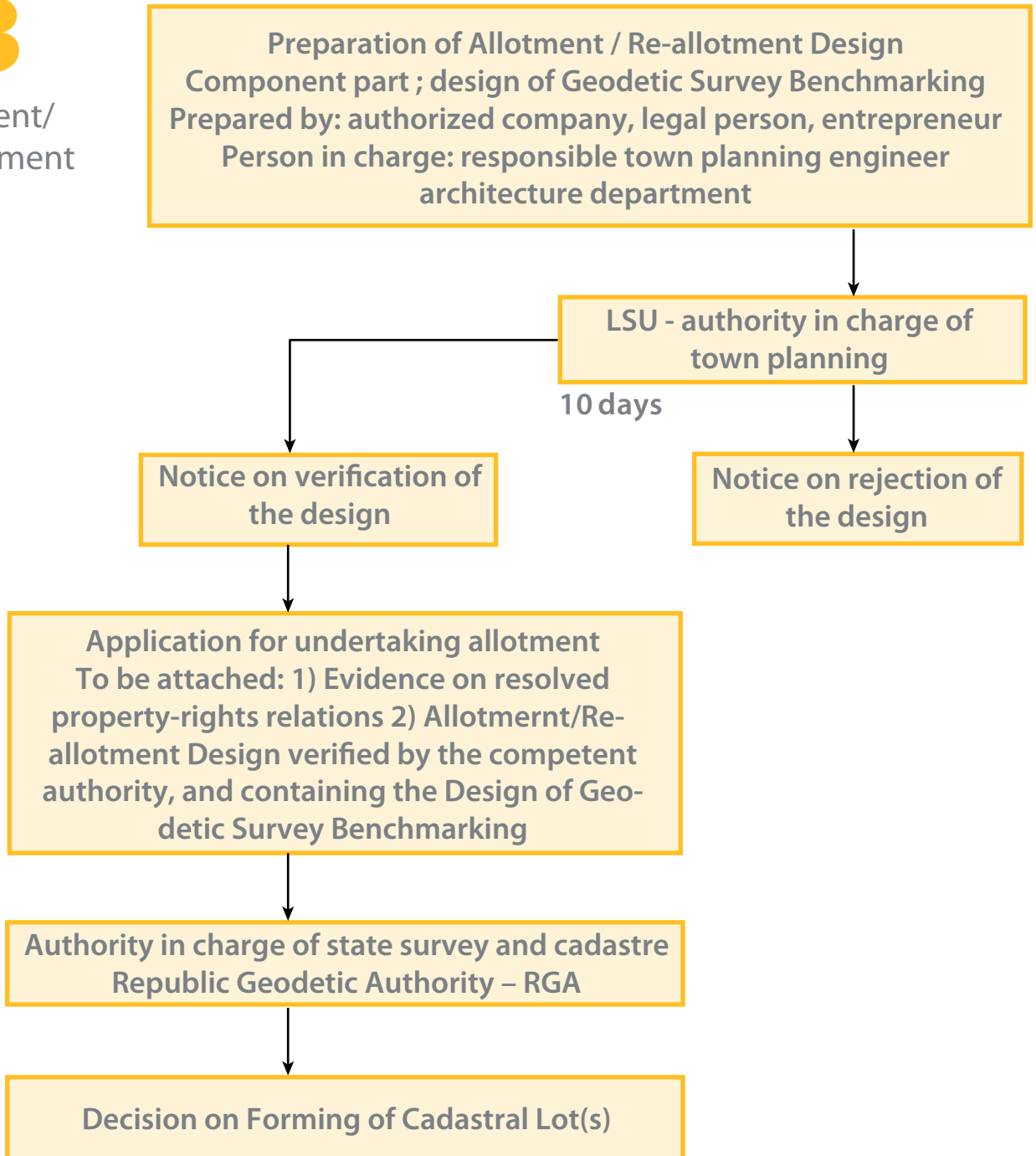
I-3

Forming the Building Plot



I-3

Allotment/ Reallotment



Basic Steps from Idea to Operation of a Power Plant
Acquiring the Right to Construct a Power Plant

• **Water-related documents**

- Water Requirements(I-3)
- Water Approval(I-4)
- Water Permit (I-5)
- Water order

• **Competence**

- Competent authority of the local self-government unit

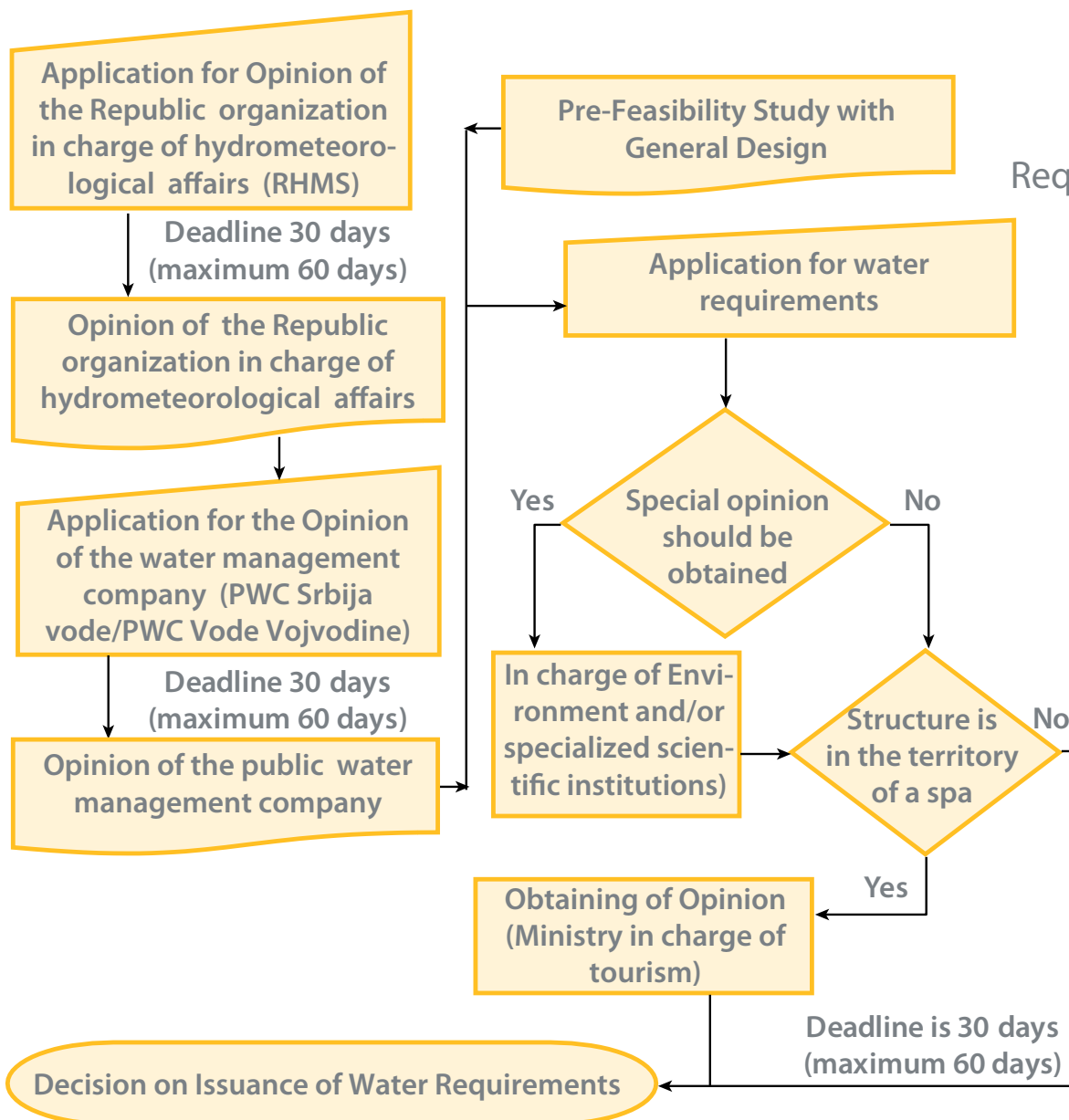
I-3

Water-related Documents

**required only if the facility affects the water regime*

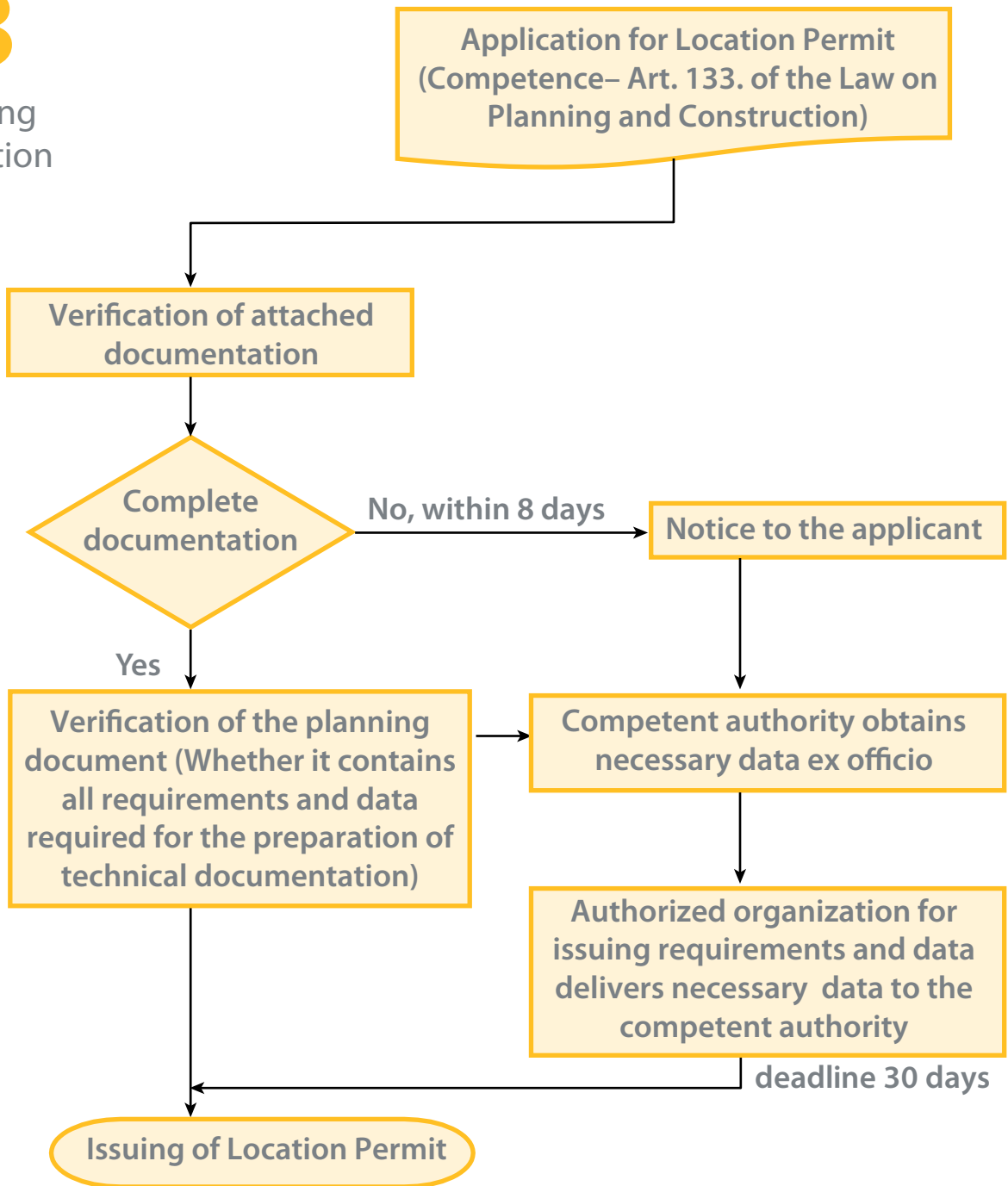
I-3

Water Requirements



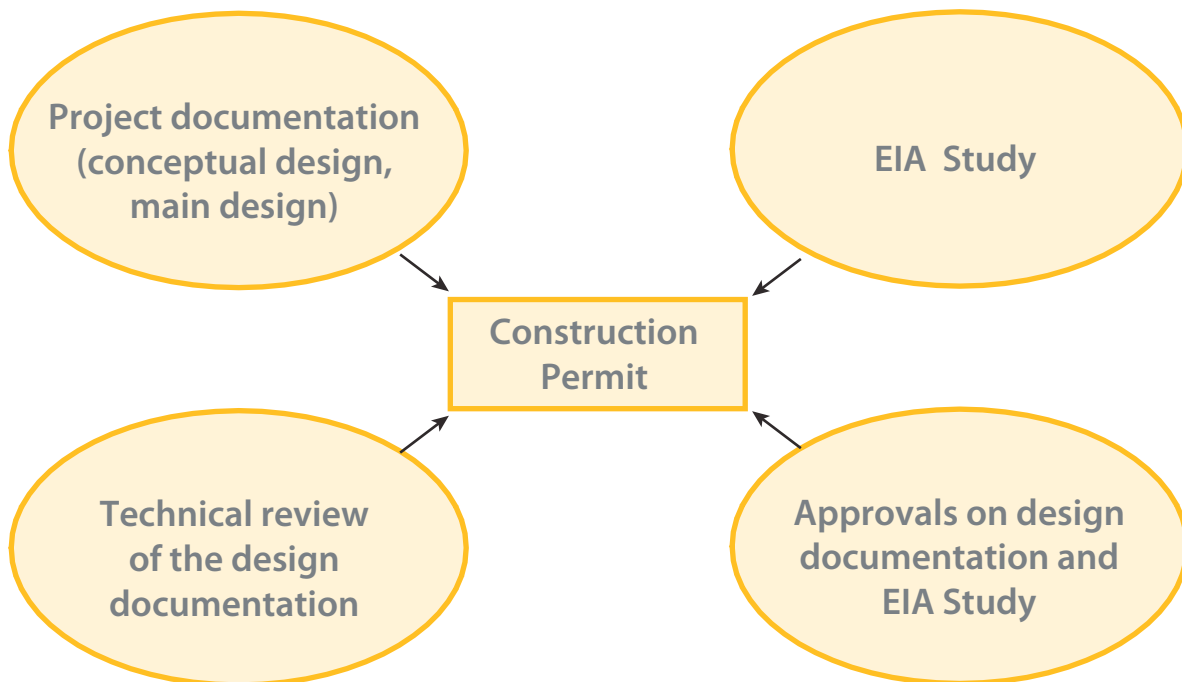
I-3

Obtaining of Location Permit



I-4

Construction Permit

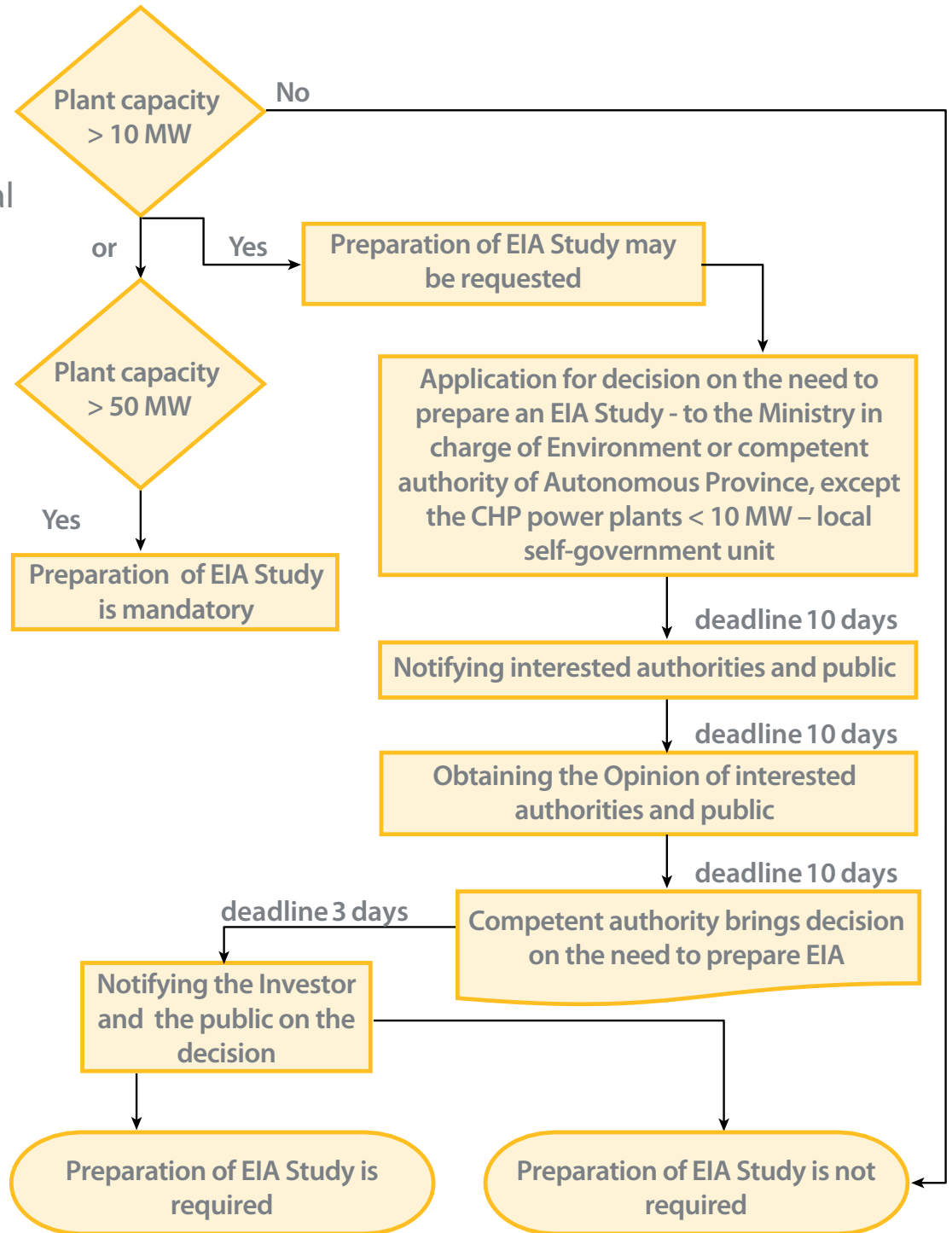


After completion of the technical review of the main design and a positive report on the completed review, the Application for the Construction Permit shall be submitted to the competent authority referred to in the Article 133 of the Law on Planning and Construction:

- Ministry in charge of construction affairs
- If the power plant is located at the territory of the Autonomous Province – to the secretariat of the Autonomous Province in charge of construction affairs

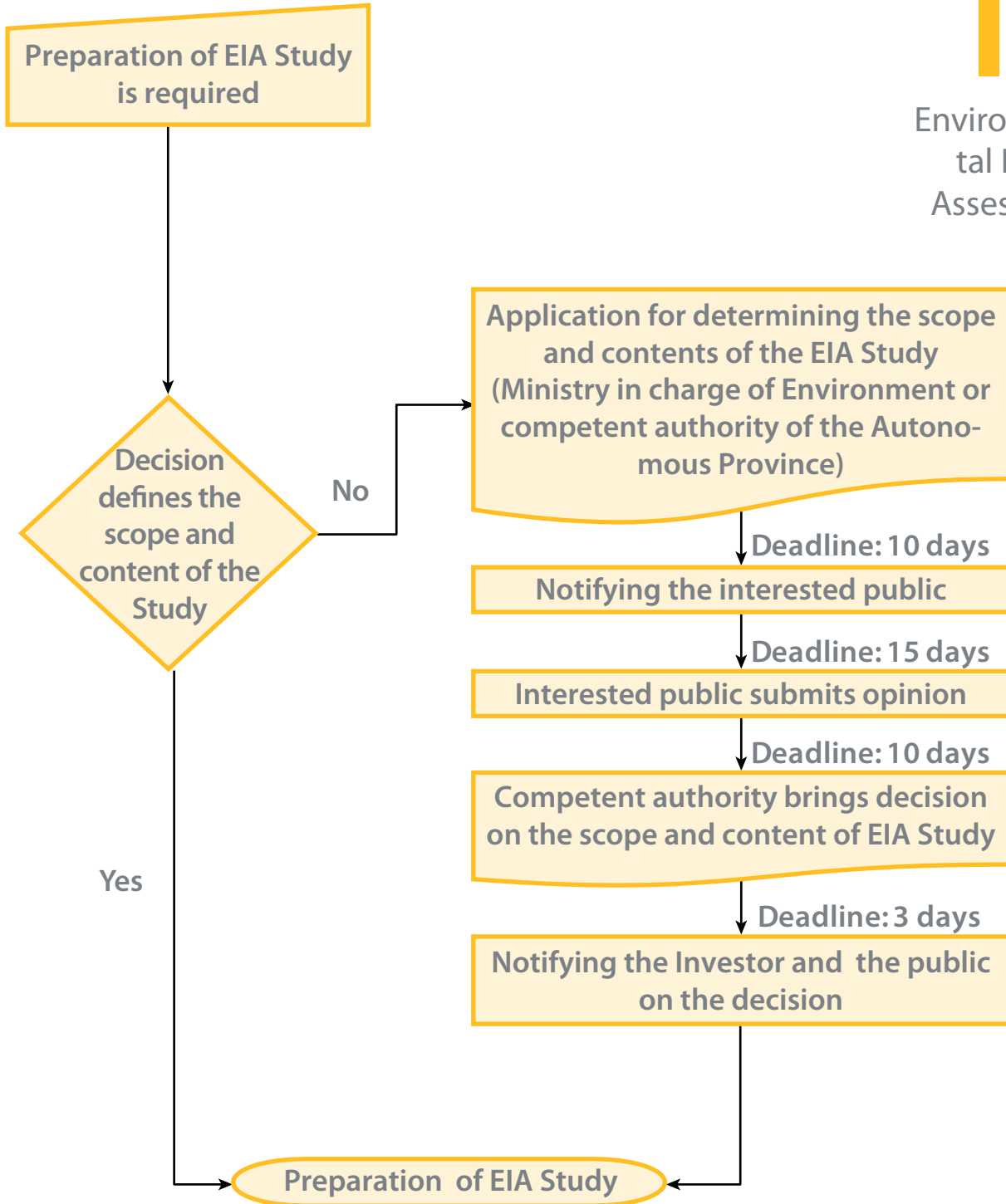
I-4

Environmental Impact Assessment (1)



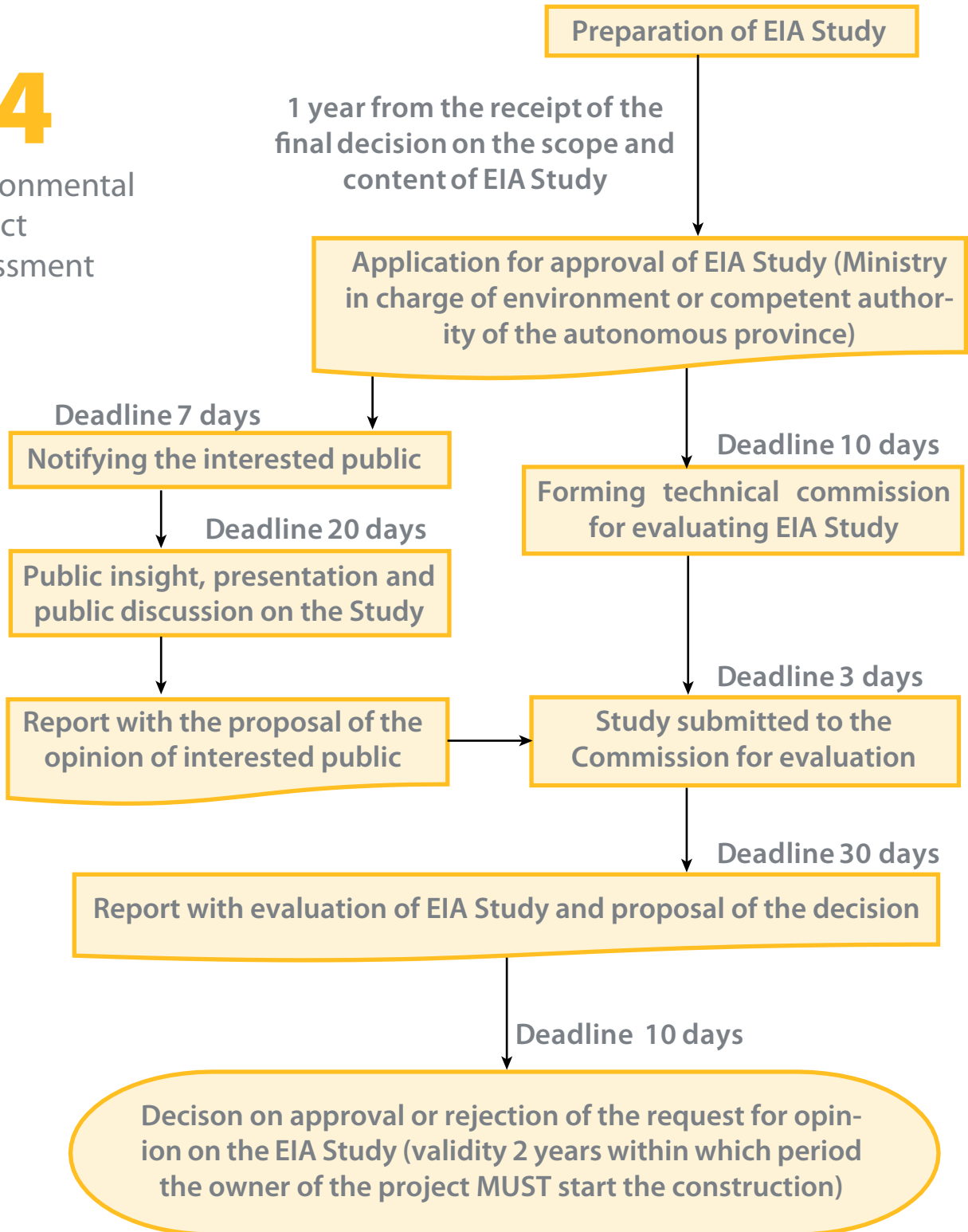
I-4

Environmental Impact Assessment (2)



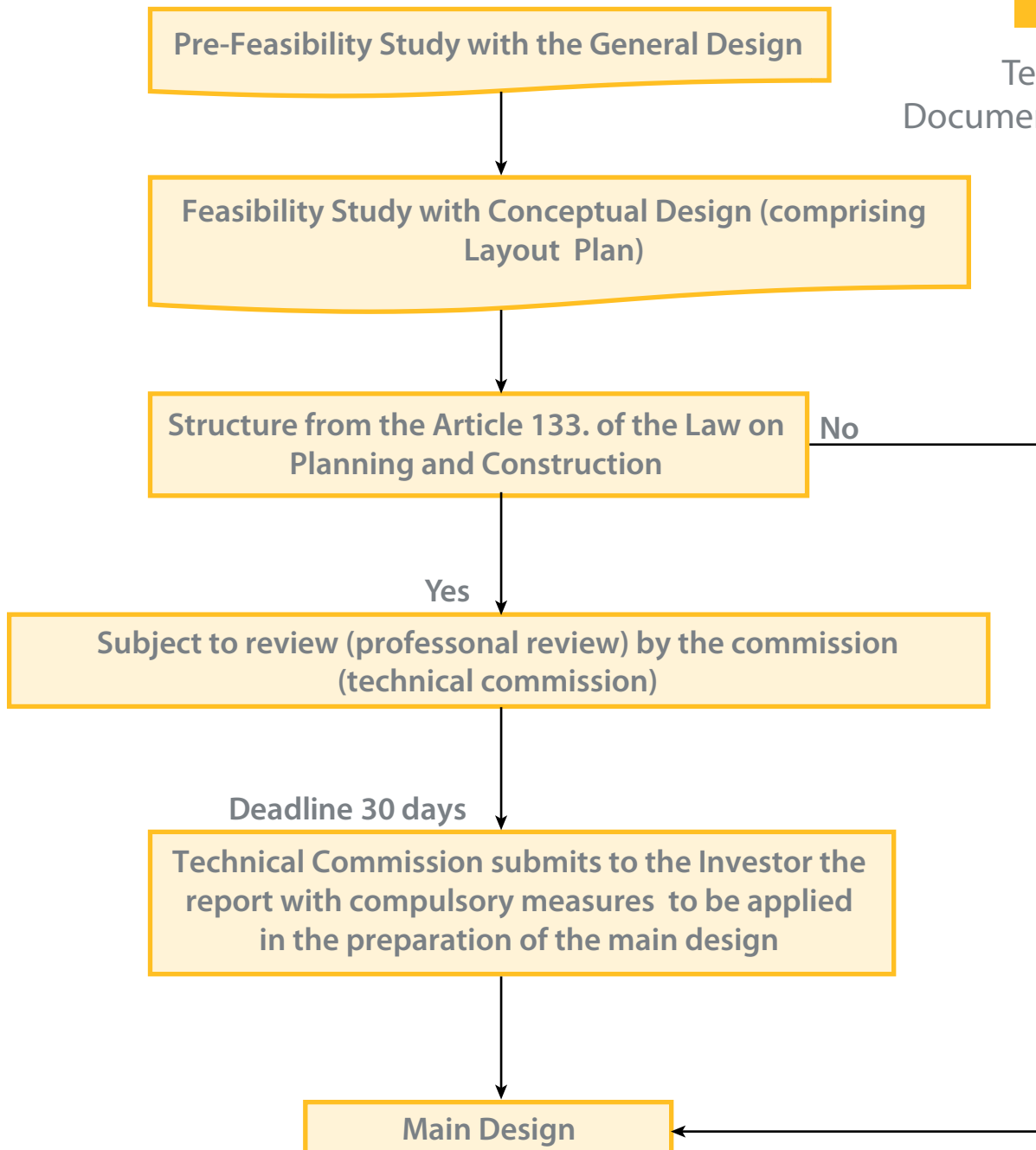
I-4

Environmental Impact Assessment (3)



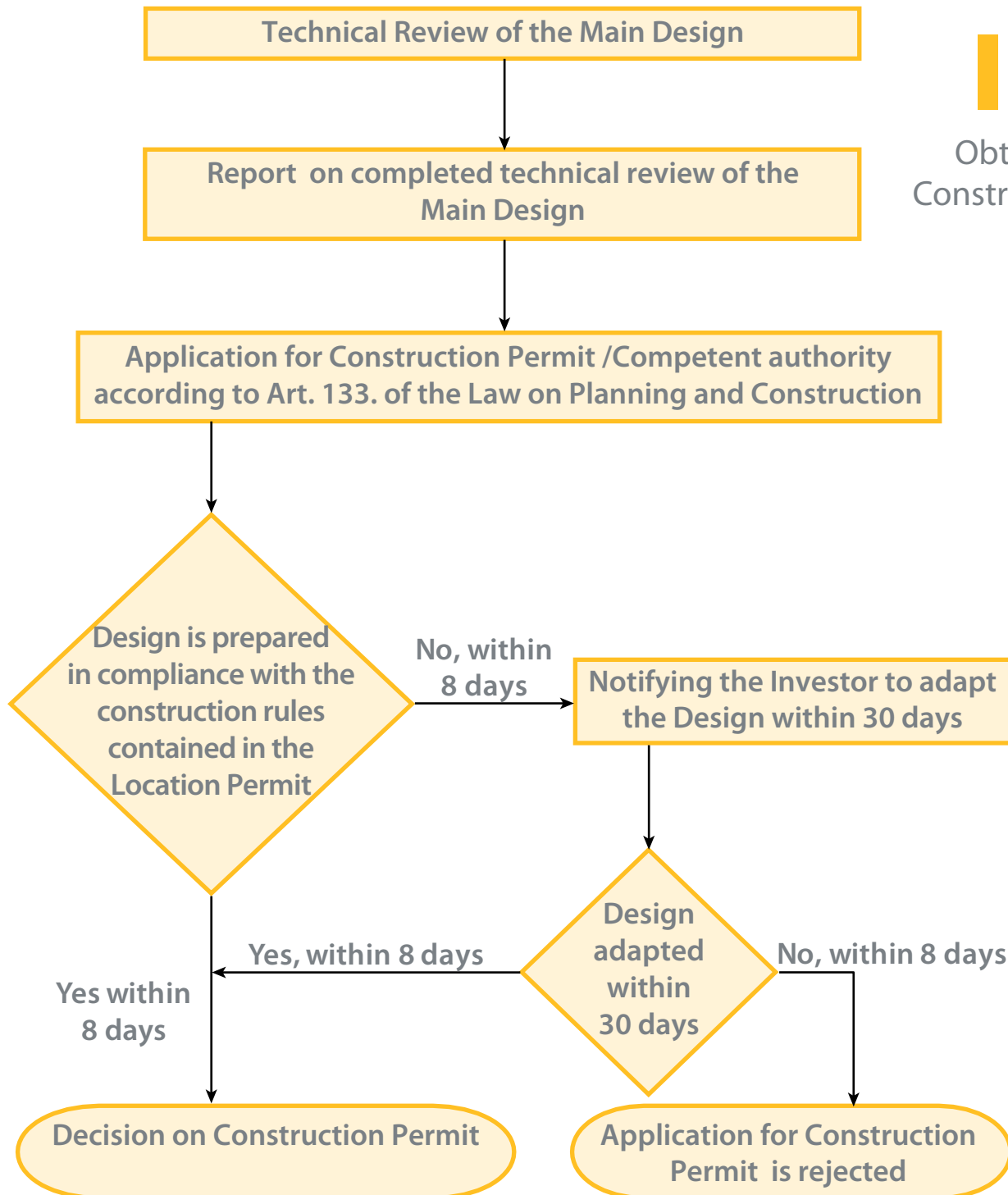
I-4

Technical Documentation



I-4

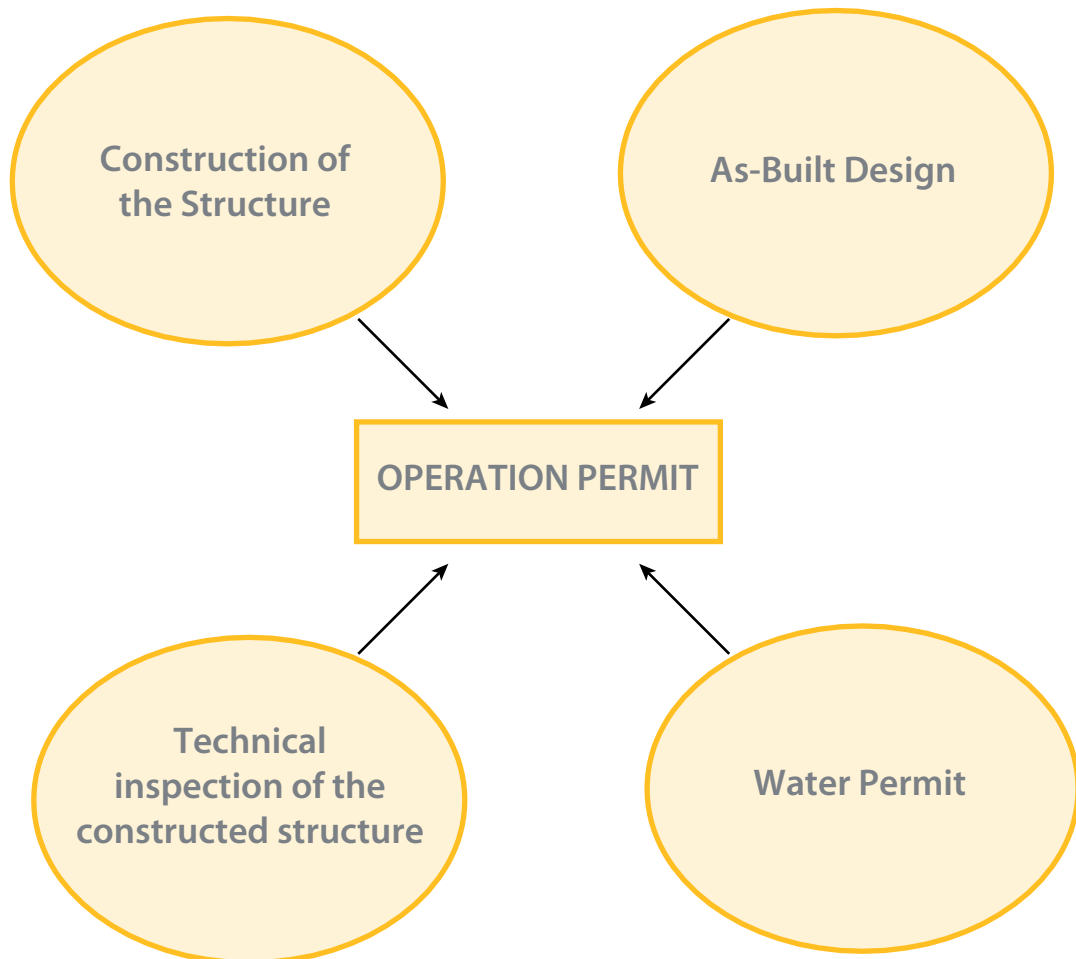
Obtaining Construction Permit



I-5

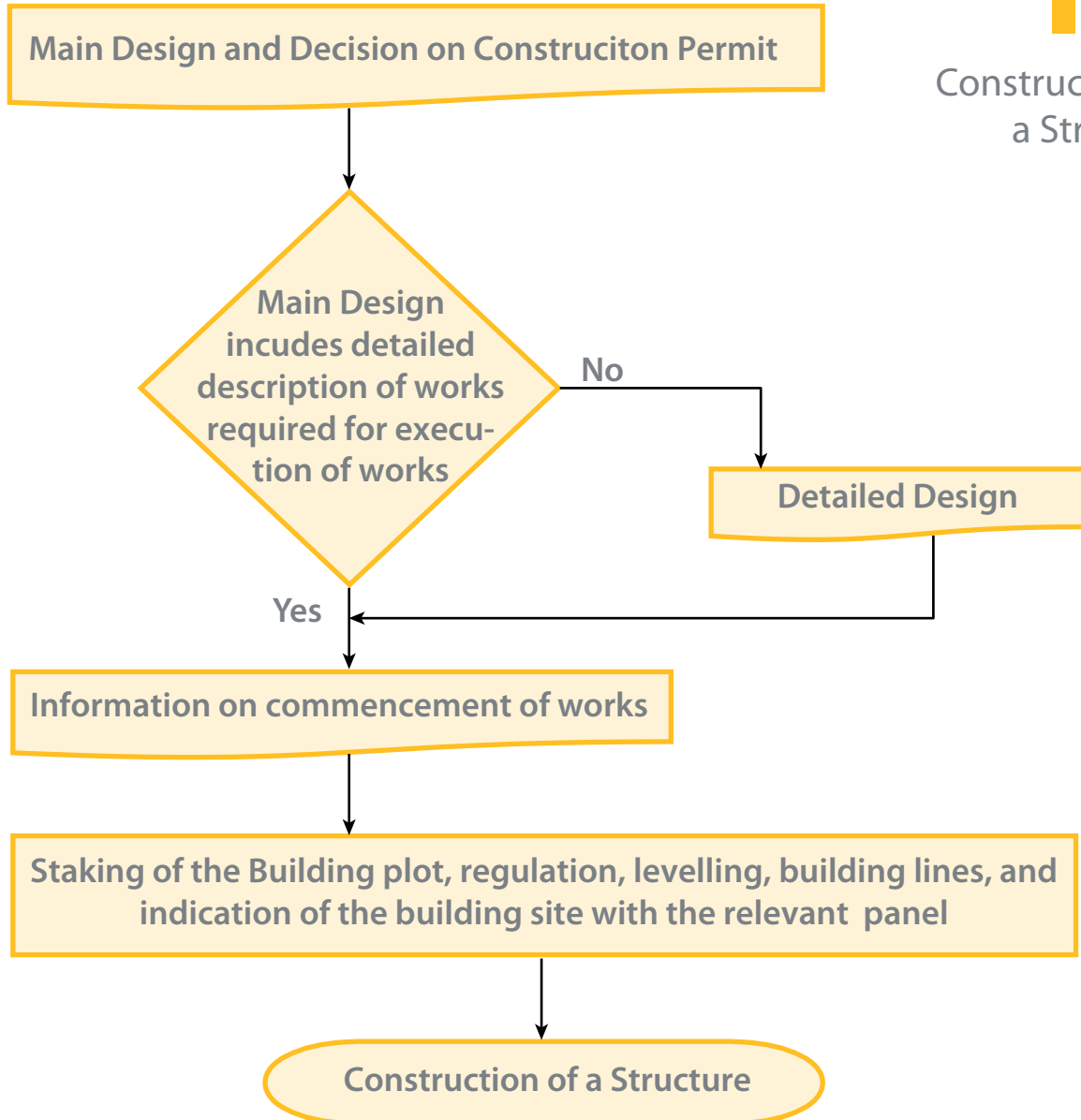
Operation Permit

- Fitness of the structure for operation is established through a technical inspection
- The structure may be used pursuant to previously obtained Operation Permit
- During the process of obtaining the Operation Permit the As-Built Design should be enclosed



I-5

Construction of a Structure



I-5

Construction of a Structure

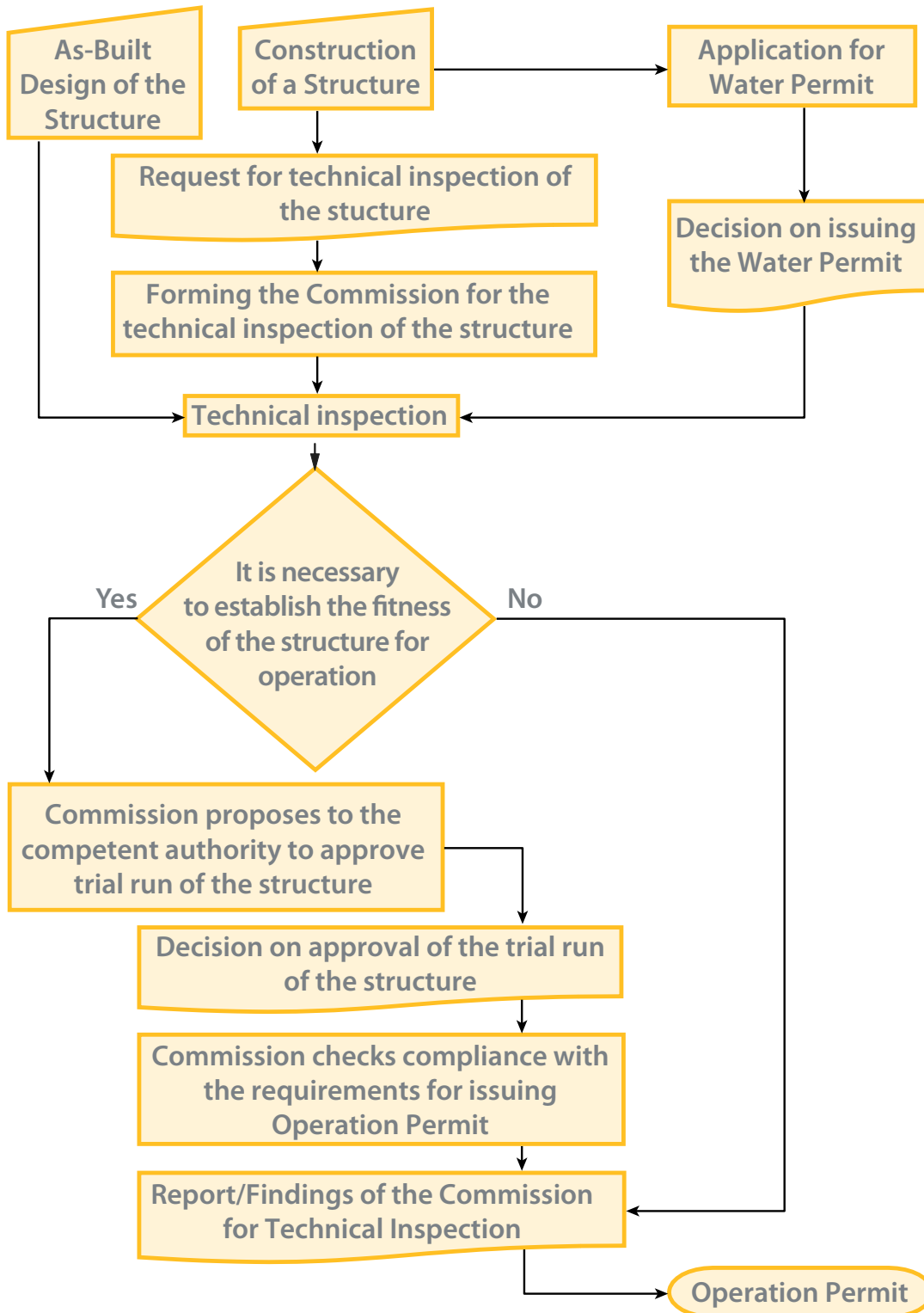
- Construction of structures, or execution of works, can be carried out by an economic entity registered in the corresponding register for the construction of structures, or for the execution of works (the contractor)
- Contractor's obligations are: to sign the main design before the commencement of works, by a decision, to designate the responsible contracting engineer, to provide to the responsible contracting engineer the contract on construction and documentation on the basis of which the structure is being built, to ensure preventive measures for a safe and harmful work in accordance with the law, to execute works according to the documentation on the basis of which the Construction Permit was issued, to organize the building site in the manner that will ensure access to the location, ensure security of the structure and the persons at the building site and its surrounding, to provide evidence on the quality of executed works, to keep the building log, building diary and ensure the inspection book, to secure structures and environs in case of the discontinuation of works.
- The construction contract, decision on appointment of the responsible contractor on the site and the main design, i.e. documentation on the basis of which the structure is being built should be constantly kept at the building site
- Investor ensures the technical supervision during the construction of the structure or execution of works for which the Construction Permit was issued

Basic Steps from Idea to Operation of a Power Plant
Acquiring the Right to Construct a Power Plant



I-5

Technical Inspection and Operation Permit



Basic Steps from Idea to Operation of a Power Plant



Acquiring the Right to Engage in the Activity of Electricity Generation

Electricity generation



Market activity

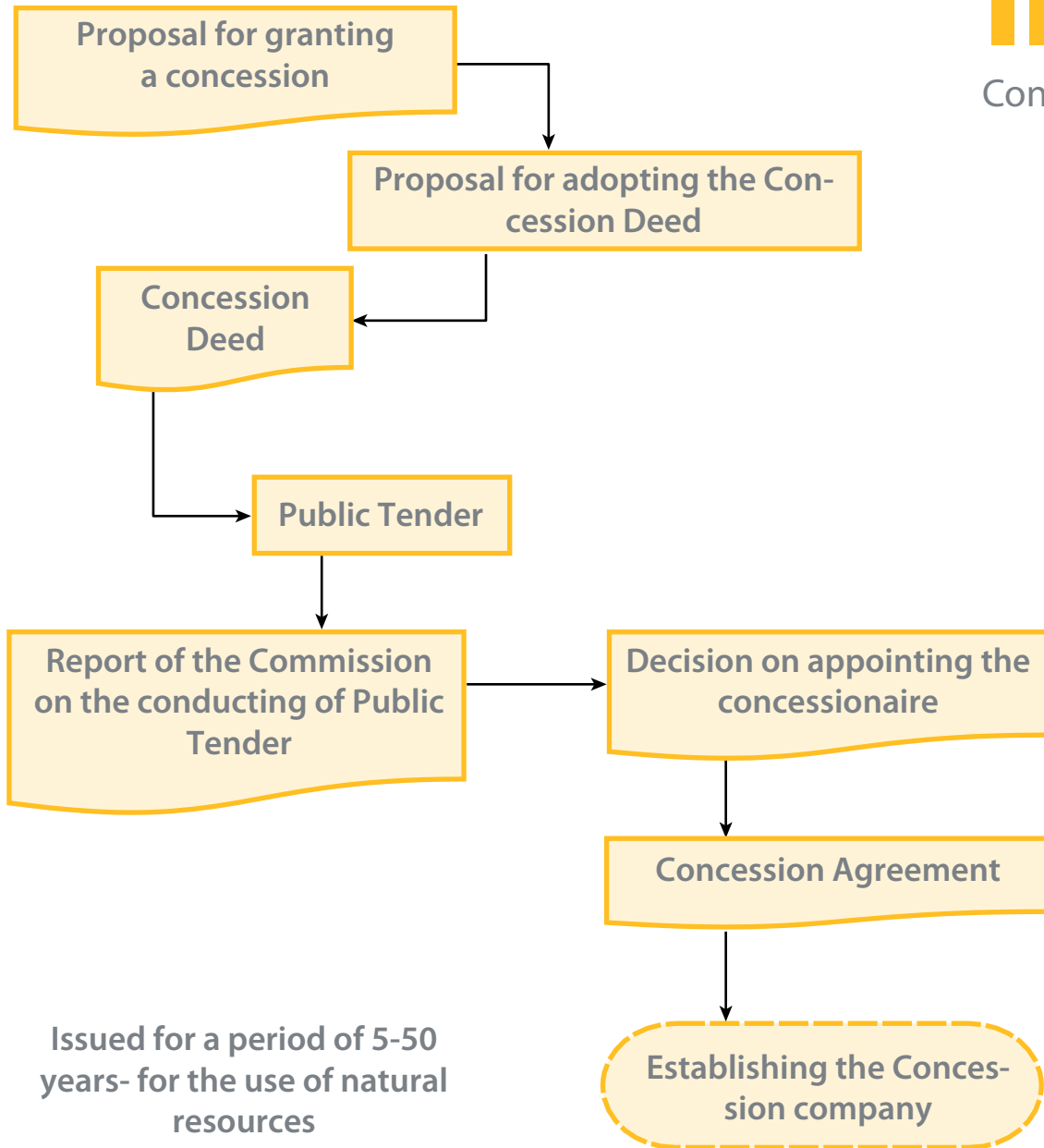
- II-1 Concession for the Utilization of the Natural Resource*
- II-2 License
- II-3 Approval of the Connection
- II-4 Privileged Producer Status
- II-5 Contract on the Purchase of Electricity

** possibility according to the law regulating concessions*

Basic Steps from Idea to Operation of a Power Plant
Acquiring the Right to Engage in the Activity of Electricity Generation



II-1
Concession



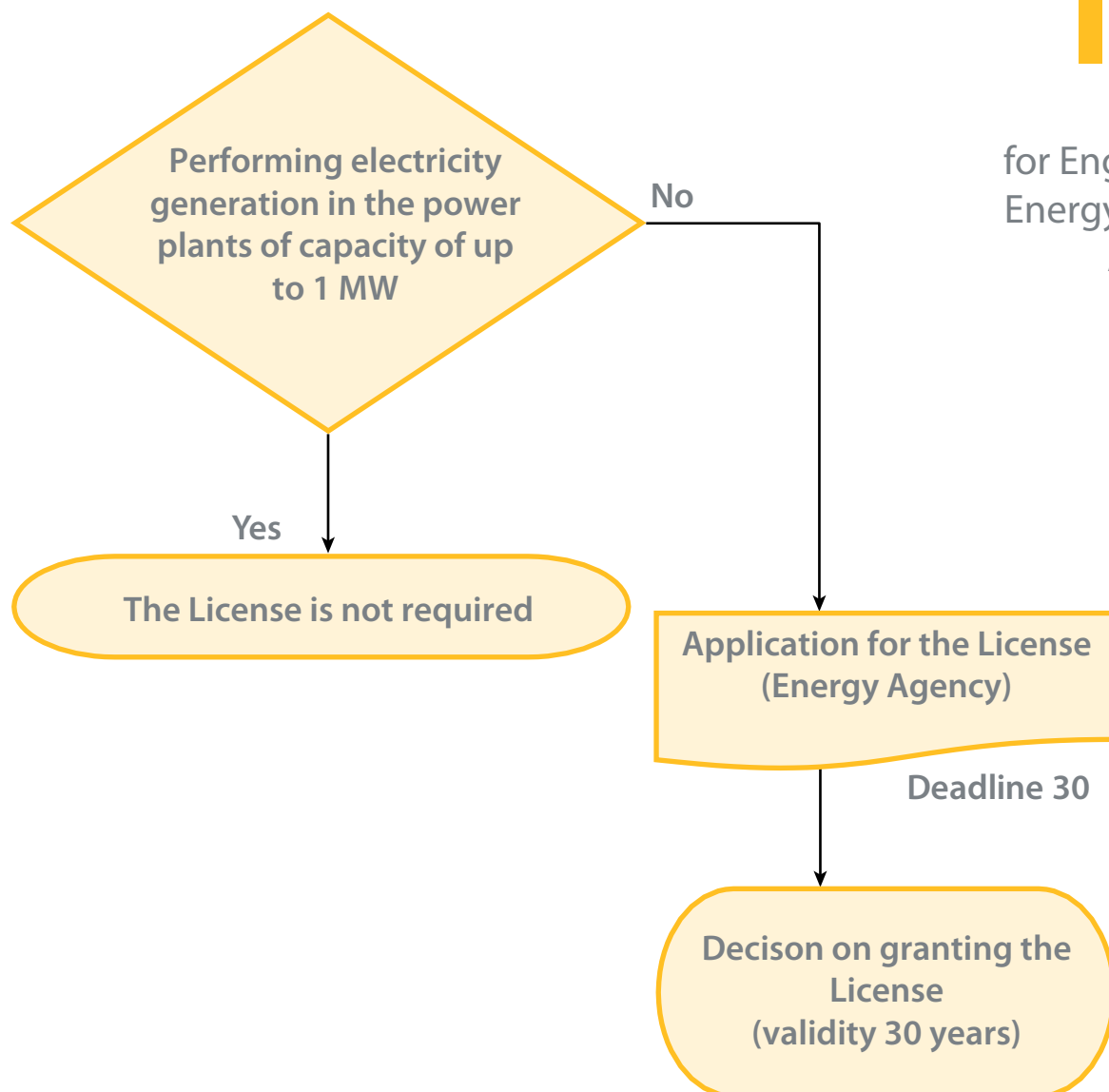
II-1

Concession, Contents of the Concession Agreement

- Parties to the agreement, subject matter of the concession, including description of structures, equipment and installations
- Validity period of the concession and conditions for its extension , duration of preparatory activities
- Distribution of risk between the public and the private partner and the scope of exclusive rights of the private partner
- Amount and the manner of providing guarantee for performance of concession commitments.
- Conditions of performing the concession –related activity and standards regarding products and services, transfer of technology
- Concession fee (amount, terms, conditions and the manner of payment)
- Rights and obligations regarding general safety, health protection and environmental protection , as well as the responsibility for the compensation of damages caused by jeopardizing the general safety and environment
- Rights to transfer the concession
- Time and manner of handing over the assets, structures, equipments and installations and the condition in which they have to be delivered
- Conditions of amendments of the agreement or its termination and their consequences, changed circumstances and the force majeure.
- Manner of resolving disputes and the application of the appropriate law
- Other provisions which are agreed by the parties to the agreement. The agreement also regulates the manner of mutual information on the execution of the agreement, manner of monitoring the implementation of the agreement and exercising of the rights and obligations of the parties to the agreement.

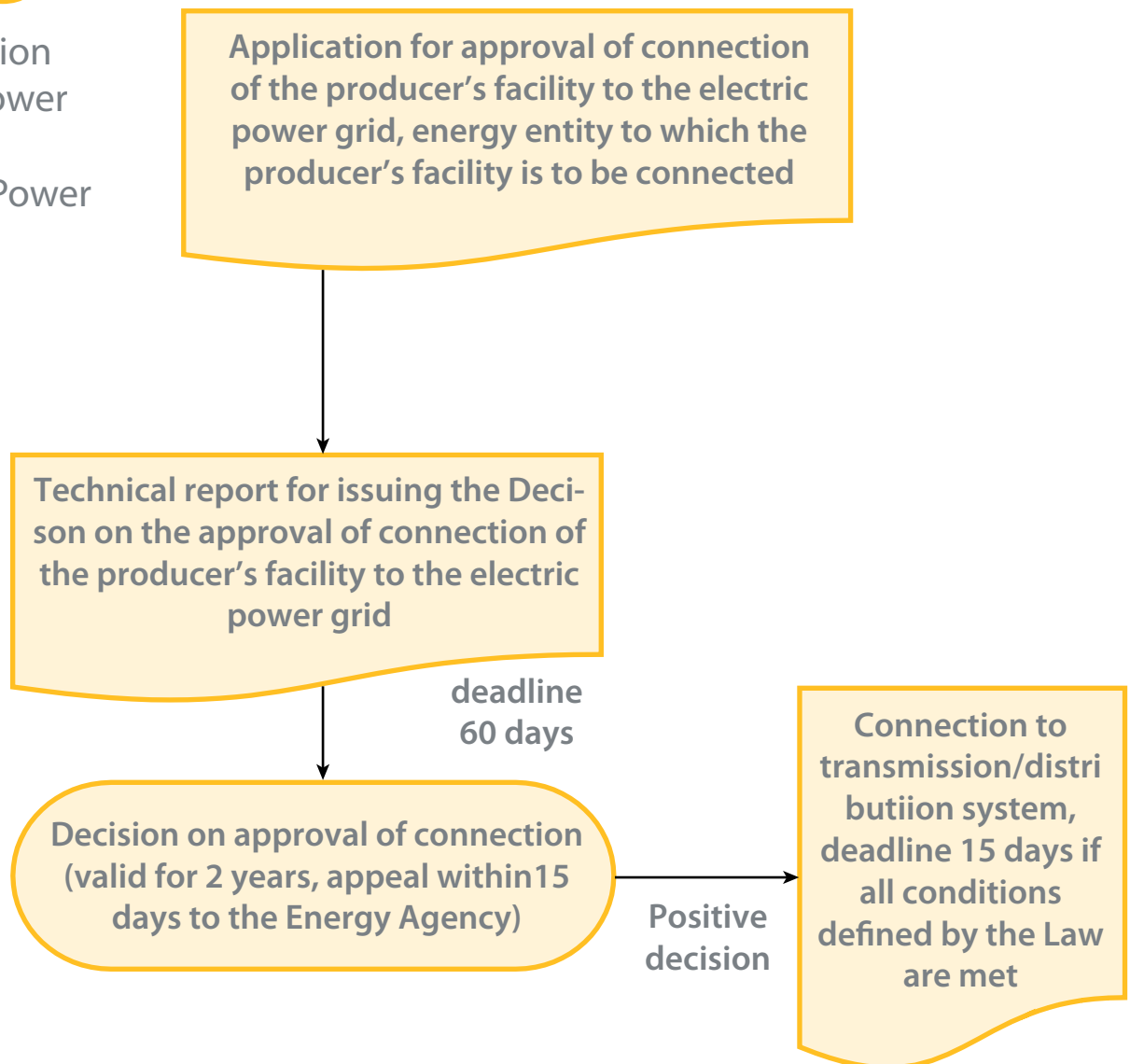
II-2

License - for Engaging in Energy-Related Activities



II-3

Connection of the Power Plant to Electric Power Grid





II-4

Privileged Producer Status

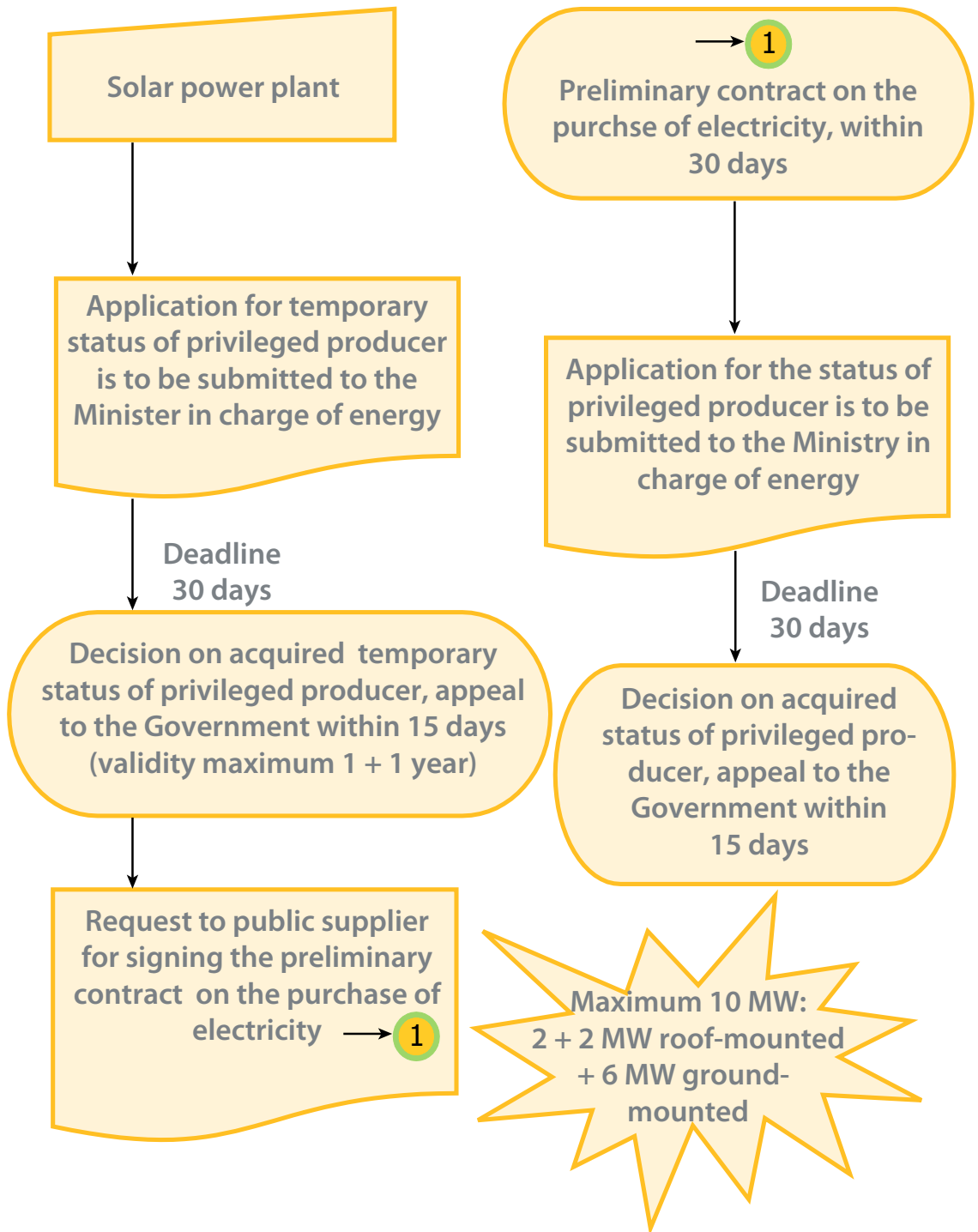
- Priority in the takeover of the total generated electricity by the transmission or distribution system, except in case when safety of operation of those systems is threatened
- Right to subsidies (tax, customs and other facilities)
- Incentives: 1) incentive period; 2) undertaking balancing responsibility; 3) free reading of generated electricity 4) right to conclude a contract with the public supplier, upon expiry of the incentive period, at the price valid at the organized market; 5) Feed-in tariff

Installed capacity of the solar power plant P (MW)	Incentive/Feed-in Tariff (cEUR/1 kWh)
On the facility up to 0,03	20,66
On the facility of 0,03 – 0,5	20,941 – 9,383*P
On the ground	16,25

- Incentives for the privileged producers which acquired the status of temporary privileged producer : 1) right to sell to the public supplier the total amount of generated electricity during the incentive period at the feed-in tariff valid at the moment of acquiring the temporary status of privileged producer; 2) amount of generated electricity during the incentive period at the feed-in tariff valid at the moment of acquiring the temporary status of privileged producer

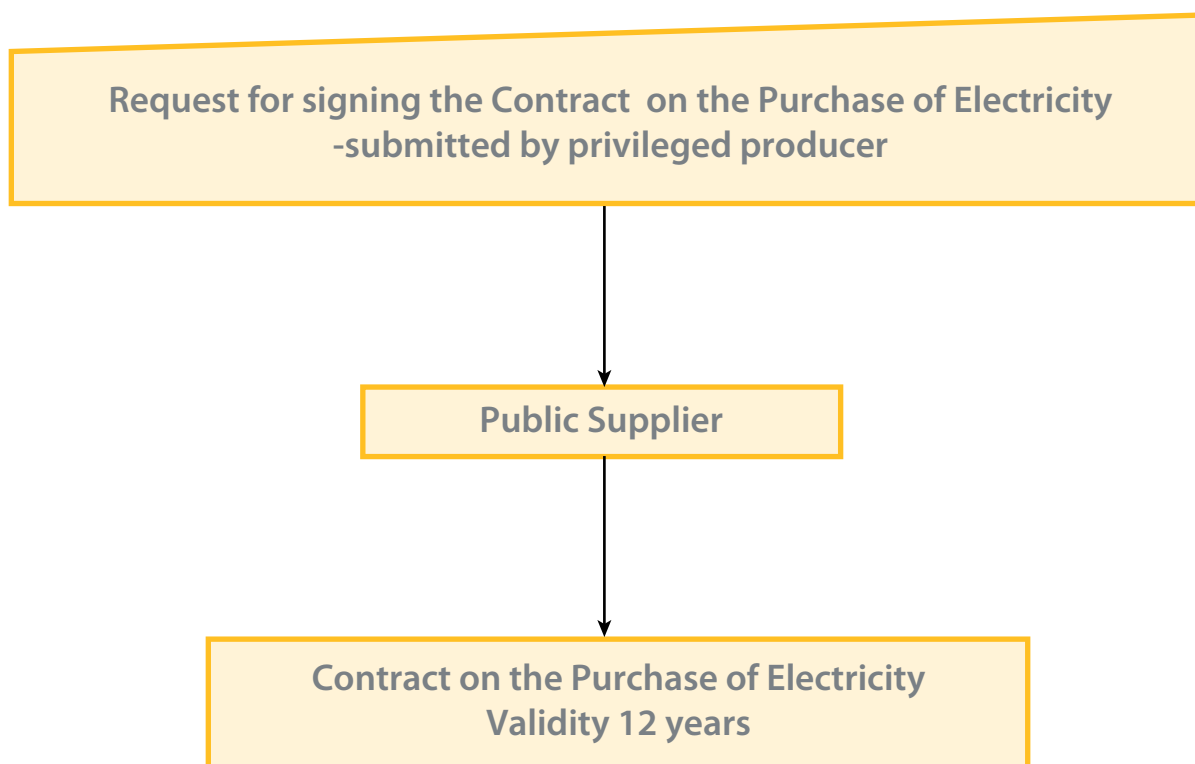
II-4

Acquiring Privileged Producer Status



II-5

Contract of the Purchase of Electricity



Special cases of construction of solar collectors and solar cells

- Article 144 of the Law on Planning and Construction
 - Solar collectors ⇨ simple structures
 - Location and construction permits are not required
 - Conditions:
 - Built at the same cadastral lot on which the main structure is built, in such a manner as not to hinder appearance of the buildings, adjacent structures and pedestrian pathways
 - Article 145 of the Law on Planning and Construction
 - Solar collectors, solar cells, as well as auxiliary or economy structures
 - Construction permit is not necessary, only the decision on execution of works
 - Documentation: 1) evidence on property rights, 2) conceptual or main design, 3) Information on location for the auxiliary structure, 4) Evidence on settled payment of fee for construction land for the said structures
 - Operation Permit may be issued
-

Guarantee of origin

- Document the exclusive function of which is to prove to the end buyer that the given share or quantity of electricity has been generated from renewable energy sources, as well as from combined heat and power production plants with a high coefficient of utilization of primary energy
- Guarantee of Origin shall be issued by the operator of the transmission system for the unit quantity of generated electricity of 1 MWh
- The Guarantee is a document in electronic form and it shall be valid for one year from the date of issuance
- Transferable
- Guarantee of Origin issued in other states shall also be valid in the Republic of Serbia under the conditions of reciprocity and in compliance with the ratified international agreement



**IZGRADNJA POSTROJENJA I PROIZVODNJA
ELEKTRIČNE ENERGIJE U SOLARNIM
ELEKTRANAMA U REPUBLICI SRBIJI**

Vodič za investitore

IZGRADNJA POSTROJENJA I PROIZVODNJA ELEKTRIČNE ENERGIJE U SOLARNIM ELEKTRANAMA U REPUBLICI SRBIJI

Vodič za investitore

Predgovor	47
Solarne elektrane	49
Izvori prava	
Potencijal sunčeve energije u republici Srbiji	49
Solarne elektrane	50
Klasifikacija elektrana	50
Relevantni propisi	51
Nadležne institucije	52
Osnovni koraci od izgradnje do korišćenja elektrane	52
I Sticanje prava na izgradnju elektrane	53
I-1 Izbor lokacije, uvid u važeće planske dokumente i informacija i lokaciji	54
I-2 Energetska dozvola	55
I-2 Pribavljanje energetske dozvola	56
I-3 Lokacijska dozvola	57
I-3 Uslovi za priključenje	58
I-3 Formiranje građevinske parcele	59
I-3 Parcelacija /preparcelacija	60
I-3 Vodna akta	61
I-3 Vodni uslovi	61
I-3 Pribavljanje lokacijske dozvole	62
I-4 Građevinska dozvola	63
I-4 Procena uticaja na životnu sredinu	64
I-4 Tehnička dokumentacija	67
I-4 Vodna saglasnost i tehnička kontrola projekta	68
I-4 Pribavljanje građevinske dozvole	69
I-5 Upotrebna dozvola	70
I-5 Izgradnja objekta	71
I-5 Tehnički pregled i upotrebna dozvola	73
II Sticanje prava na obavljanje delatnosti proizvodnje električne energije	74
II-1 Koncesija	75
II-1 Sadržaj ugovora o koncesiji	76
II-2 Licenca	77
II-3 Priključenje elektrane na elektroenergetsku mrežu	78
II-4 Status povlašćenog proizvođača električne energije	79
II-4 Sticanje statusa povlašćenog proizvođača	80
II-5 Ugovor o otkupu električne energije	81
Posebni slučajevi izgradnje solarnih kolektora i solarnih ćelija	82

Predgovor

Srbija ima značajan potencijal u obnovljivim izvorima energije koji je, na žalost, još uvek nedovoljno iskorišćen. Jedan od razloga za takvu situaciju je nedovoljna investiciona aktivnost u ovom sektoru. Očekuje se da će u narednih nekoliko godina doći do krupnih pomaka u tom pogledu, s obzirom na najnoviji korak Vlade Republike Srbije u smislu prihvatanja odluke Ministarskog saveta Energetske zajednice o promociji obnovljive energije kroz transpoziciju Direktive 2009/28/EC o obnovljivim izvorima energije. Ovom odlukom Srbiji je postavljen ambiciozni cilj da poveća učešće obnovljive energije u ukupnoj potrošnji finalne energije na 27% u 2020. godini sa 21.2% u referentnoj, 2009. godini

Program Ujedinjenih nacija za razvoj (UNDP) je tokom 2012. godine, na osnovu sporazuma o saradnji sa Ministarstvom energetike, razvoja i zaštite životne sredine Republike Srbije, sproveo projekat "Političko savetovanje u oblasti obnovljivih izvora energije" tokom koga su izrađena dva nova i izvršena revizija četiri postojeća, zastarela vodiča za investiture u postrojenja koja koriste obnovljive izvore energije:

- IZGRADNJA POSTROJENJA I PROIZVODNJA ELEKTRIČNE/TOPLLOTNE ENERGIJE IZ BIOMASE U REPUBLICI SRBIJI
 - IZGRADNJA POSTROJENJA I PROIZVODNJA ELEKTRIČNE ENERGIJE U MALIM HIDRO-ELEKTRANAMA U REPUBLICI SRBIJI
 - IZGRADNJA POSTROJENJA I PROIZVODNJA ELEKTRIČNE ENERGIJE U VETROELEKTRANAMA U REPUBLICI SRBIJI
-

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- IZGRADNJA POSTROJENJA I PROIZVODNJA ELEKTRIČNE/TOPLLOTNE ENERGIJE IZ HIDROGEOTERMALNIH IZVORA U REPUBLICI SRBIJI
 - IZGRADNJA POSTROJENJA I PROIZVODNJA ELEKTRIČNE ENERGIJE U SOLARNIM ELEKTRANAMA U REPUBLICI SRBIJI
 - IZGRADNJA SOLARNIH GREJNIH SISTEMA U REPUBLICI SRBIJI

Svi vodiči, izuzev jednog, su dvojezični i izrađeni u dve verzije. U šest detaljnih vodiča opisane su celokupne složene procedure za izgradnju postrojenja i obavljanje delatnosti proizvodnje energije iz konkretnih obnovljivih izvora, uz upućivanje na odgovarajuće propise i navođenje nadležnih institucija. Detaljni vodiči namenjeni su, pre svega, investitorima i stručnjacima koji rade na razvoju projekata, ali i zaposlenima u različitim nadležnim institucijama, s obzirom na međusektorski karakter procedura. U pet sažetih vodiča ova složena problematika prikazana je manje detaljno i na slikovit način, čime se tema približava i širem krugu zainteresovanih strana.

Cilj izrade vodiča je da se ohrabre i pomognu investitori da ulažu u obnovljive izvore energije u Srbiji, ali i da se, kroz detaljno sagledavanje složenih zakonskih procedura, uoče njihovi nedostaci, kao i da se podstaknu nadležni da kroz zakonodavne i institucionalne aktivnosti ove procedure pojednostave i unaprede. Nadamo se da će ovi vodiči pokrenuti konstruktivni dijalog mnogobrojnih zainteresovanih strana i time doprineti boljoj informisanosti i međusobnom razumevanju, što, u krajnjoj liniji, treba da rezultira povoljnim okruženjem za investicije u sektoru obnovljivih izvora energije.

Solarne elektrane

- Energetski objekti za obavljanje energetske delatnosti proizvodnje električne energije iz potencijala sunčevog zračenja
- Rade na principu fotonaponskog efekta, pri čemu se pod uticajem sunčevog zračenja u solarnim ćelijama generiše jednosmerni napon i struja
- Ako u procesu proizvodnje električne energije u pojedinačnom proizvodnom objektu koriste neakumuliranu sunčevu energiju, ukoliko ispune određene uslove, mogu steći status povlašćenog proizvođača električne energije.

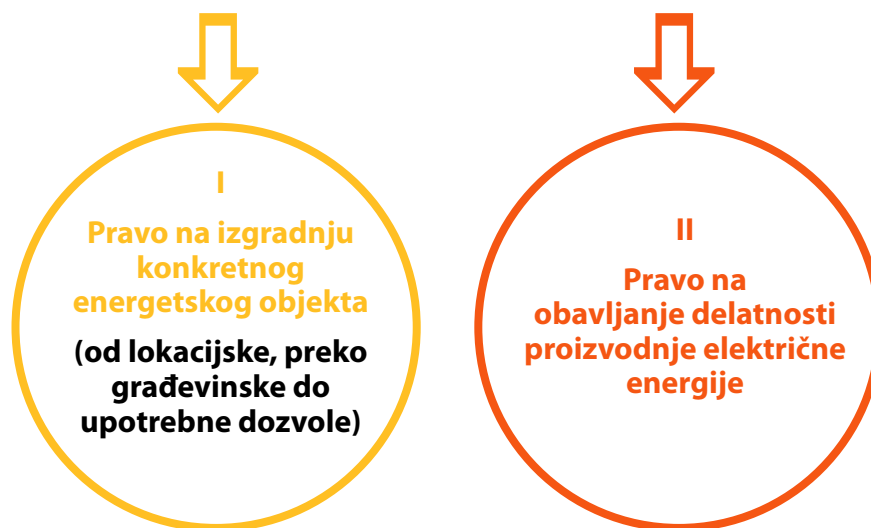
Napomena

Potrebno je ukazati da se ovaj Vodič odnosi na solarne elektrane u opštem smislu i da su u njemu opisane procedure pred nadležnim organima i institucijama, ali da pojedini elementi ovih procedura, kao i sprovođenje pojedinih procedura zavisi od veličine objekta, mesta na kome se gradi objekat, konkretne tehnologije za proizvodnju energije i drugih karakteristika samog objekta

Potencijal energije sunca u Republici Srbiji

- Sunčeva energija predstavlja 15% od ukupno iskoristivog potencijala obnovljivih izvora energije u Srbiji
- Prosečno sunčevo zračenje u Srbiji je veće od evropskog proseka, ali i pored toga korišćenje sunčeve energije za proizvodnju električne energije daleko zaostaje za zemljama Evropske unije
- Energetski potencijal sunčevog zračenja je za oko 30% viši u Srbiji nego u Srednjoj Evropi, a intenzitet sunčevog zračenja je među najvećima u Evropi
- Prosečna vrednost globalnog zračenja za teritoriju Nemačke iznosi oko 1000 kWh/m², dok je za Srbiju ta vrednost oko 1400 kWh/m²

Investitor treba da stekne sledeća prava:



Klasifikacija elektrana

- **Zakon o energetici**
 - elektrane koje koriste obnovljive izvore energije
 - Pravilnik o kriterijumima za izdavanje energetske dozvole, sadržini zahteva i načinu izdavanja energetske dozvole
- **objekti za proizvodnju električne energije nazivne snage od 1 do 10 MW**
 - objekti za proizvodnju električne energije nazivne snage preko 10 MW
- **Zakon o planiranju i izgradnji**
 - elektrane za proizvodnju energije iz obnovljivih izvora – nadležnost ministarstva za poslove građevinarstva, odnosno autonomne pokrajine,
- **Uredba o uslovima i postupku sticanja statusa povlašćenog proizvođača električne energije**
 - elektrane koje u procesu proizvodnje koriste energiju sunčevog zračenja na objektu
 - elektrane koje u procesu proizvodnje koriste energiju sunčevog zračenja na tlu

Klasifikacija elektrana

- **Uredba o utvrđivanju Liste projekata za koje je obavezna procena uticaja i Liste projekata za koje se može zahtevati procena uticaja na životnu sredinu razlikuje sledeća postrojenja**
 - postrojenja sa snagom od 50 MW ili više (Lista I) – postrojenja za koja je obavezna izrada Studije o proceni uticaja i
 - postrojenja sa snagom od 1 do 50 MW (Lista II) – postrojenja za koja se može zahtevati izrada Studije o proceni uticaja. Izuzetno se i za postrojenja snage do 1 MW može tražiti procena uticaja ako se radi o elektranama koje će se graditi u zaštićenom prirodnom dobru i zaštićenoj okolini nepokretnog kulturnog dobra i u drugim područjima posebne namene
-

Relevantni propisi

- Zakon o energetici ("Sl. Glasnik RS" br. 57/11, 80/11, 93/12 i 124/12)
- Odluka o utvrđivanju Strategije razvoja energetike Republike Srbije do 2015. godine («Sl. glasnik RS» br. 44/05)
- Uredba o utvrđivanju Programa ostvarivanja Strategije razvoja energetike Republike Srbije do 2015. godine za period od 2007. do 2012. godine («Sl. glasnik RS» br. 17/07, 73/07, 99/09 i 27/10)
- Zakon o planiranju i izgradnji ("Sl. glasnik RS" br. 72/09, 81/09, 24/11 i 121/12)
- Zakon o prostornom planu Republike Srbije od 2010. do 2020. godine ("Sl. glasnik RS" br. 88/10)
- Zakon o zaštiti životne sredine ("Sl. glasnik RS" br. 135/04 i 36/09)
- Zakon o vodama ("Sl. glasnik RS" br. 30/10 i 93/12)
- Zakon o šumama („Sl. glasnik RS" br. 30/10 i 93/12)
- Zakon o proceni uticaja na životnu sredinu («Sl. glasnik RS» br. 135/04 i 36/09).
- i ostali zakoni i podzakonska akta...

Nadležne institucije

- Ministarstvo energetike, razvoja i zaštite životne sredine – MERŽS
 - Jedinica lokalne samouprave - JLS
 - Agencija za energetiku - AE
 - Republički geodetski zavod - RGZ
 - Ministarstvo poljoprivrede, šumarstva i vodoprivrede – MPŠV
 - Ministarstvo prirodnih resursa, rudarstva i prostornog planiranja - MPRRPP
 - Republički hidrometeorološki zavod - RHMZ
 - Elektromreža Srbije - EMS
 - Elektroprivreda Srbije - EPS
 - i ostale nadležne institucije u konkretnom slučaju
-

Osnovni koraci od ideje do korišćenja elektrane

I Sticanje

- prava na izgradnju objekta

II Sticanje

- prava na obavljanje delatnosti proizvodnje
- električne energije

Osnovni koraci od ideje do korišćenja elektrane



Sticanje prava na izgradnju elektrane

I-1 Pribavljanje informacije o lokaciji

I-2 Pribavljanje energetske dozvole

Izrada Prethodne studije opravdanosti sa generalnim projektom

Rešavanje Imovinsko-pravnih odnosa / Parcelacija i preparcelacija

Prikupljanje uslova za projektovanje

I-3 Pribavljanje lokacijske dozvole*

Izrada Studije opravdanosti sa idejnim projektom / Glavni projekat

Izrada studije o proceni uticaja na životnu sredinu

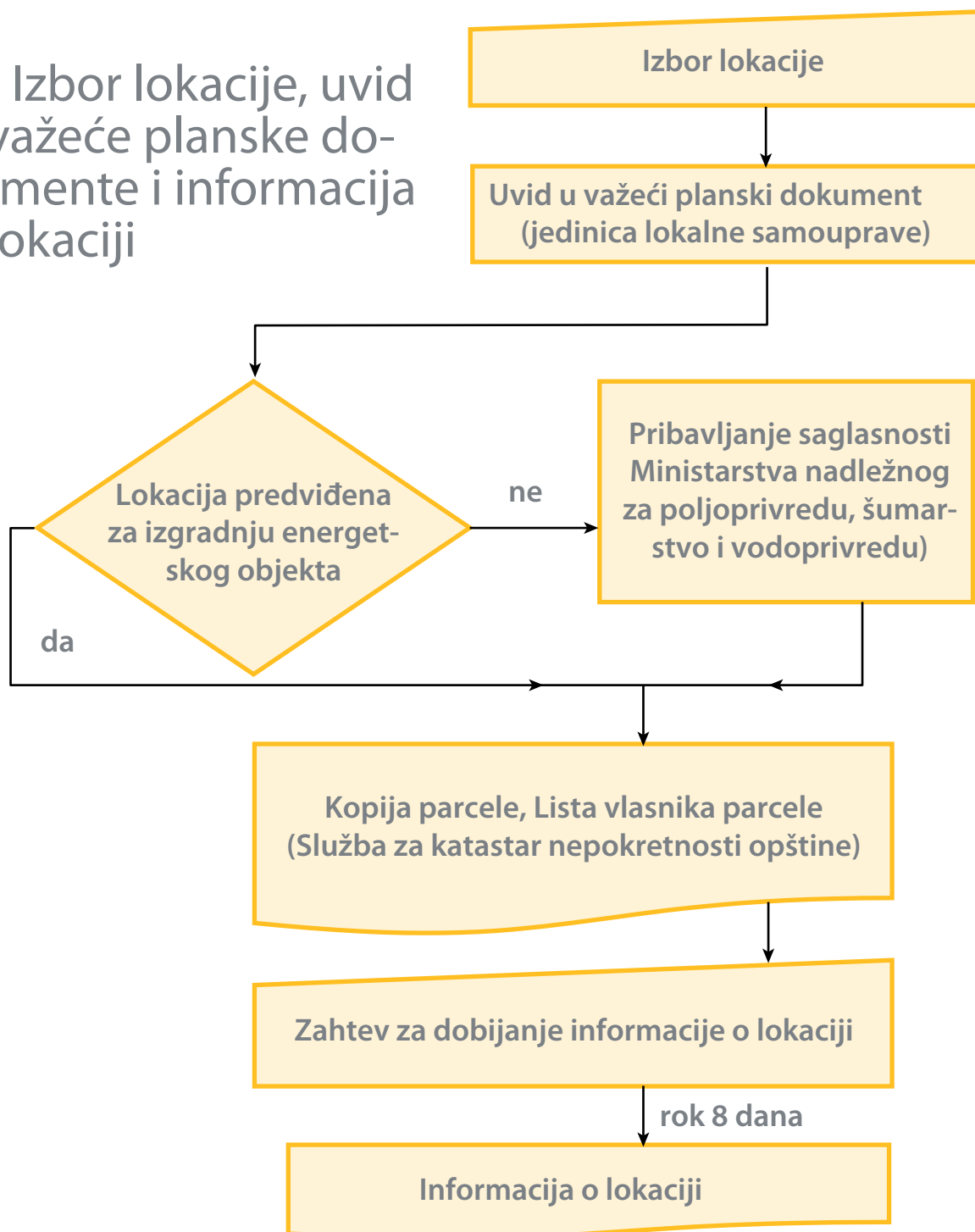
I-4 Pribavljanje građevinske dozvole

Izgradnja objekta

I-5 Pribavljanje vodne dozvole i upotrebne dozvole

** može se sprovesti pre ili posle pribavljanja energetske dozvole*

I-1 Izbor lokacije, uvid u važeće planske dokumente i informacija o lokaciji



Napomena

Analiza i izbor potencijalne lokacije za izgradnju elektrane i njen izbor su prvi korak, koji u značajnoj meri opredeljuje izradu tehničke dokumentacije za izgradnju elektrane

I-2

Energetska dozvola

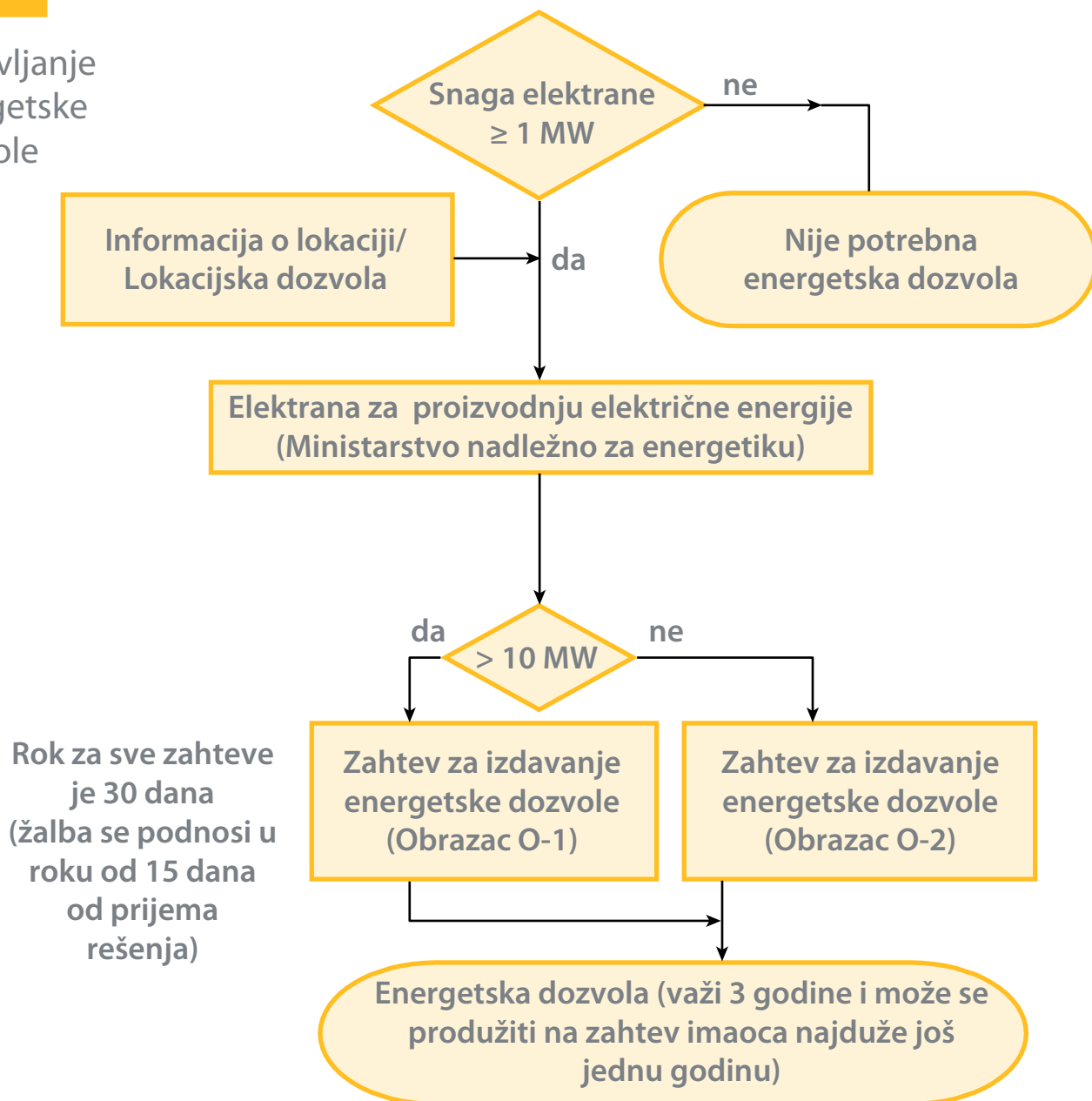


- Energetska dozvola je akt neophodan za pribavljanje građevinske dozvole propisan Zakonom o energetici
- Energetska dozvola nije potreban za objekte snage manje od 1 MW

Napomena

I-2

Pribavljanje energetske dozvole



I-3

Lokacijska dozvola

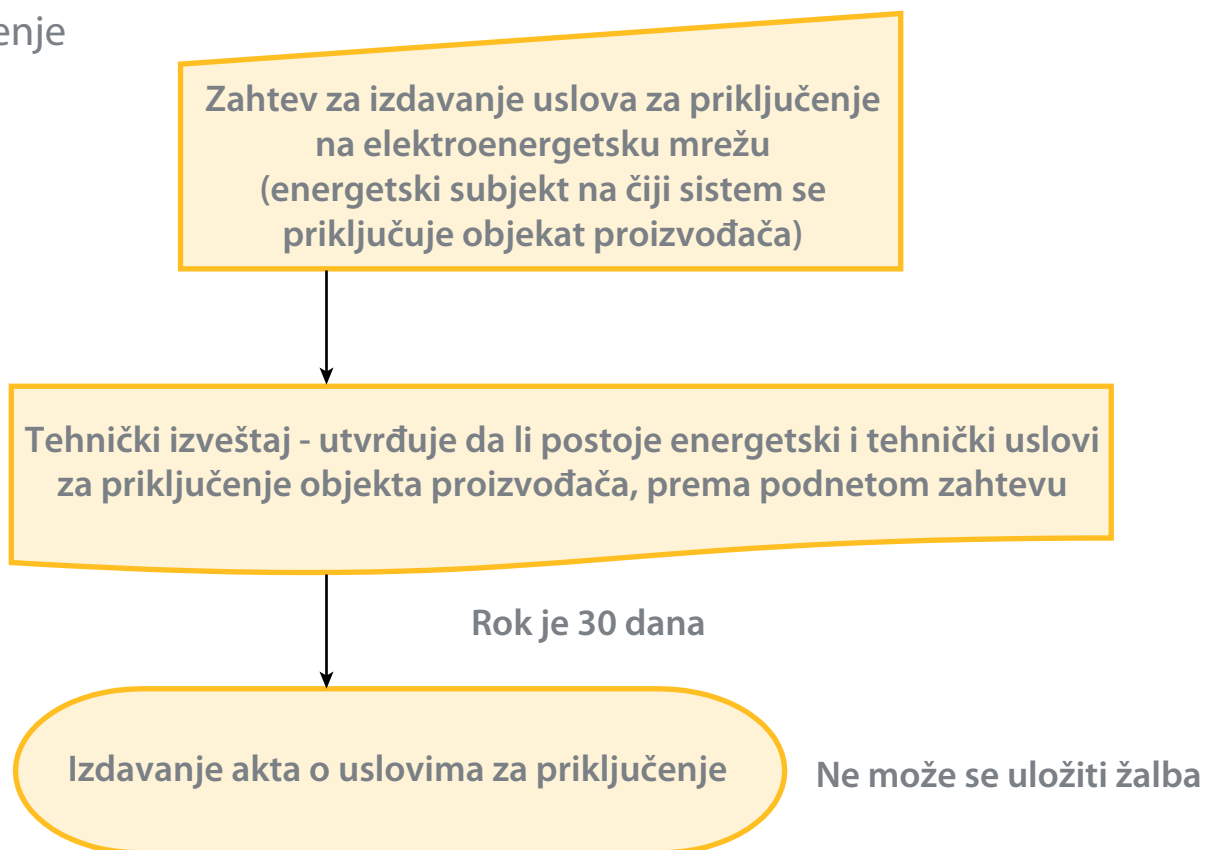


Lokacijska dozvola sadrži sve uslove i podatke potrebne za izradu tehničke dokumentacije, glavnog projekta, a u skladu sa važećim planskim dokumentom

Napomena

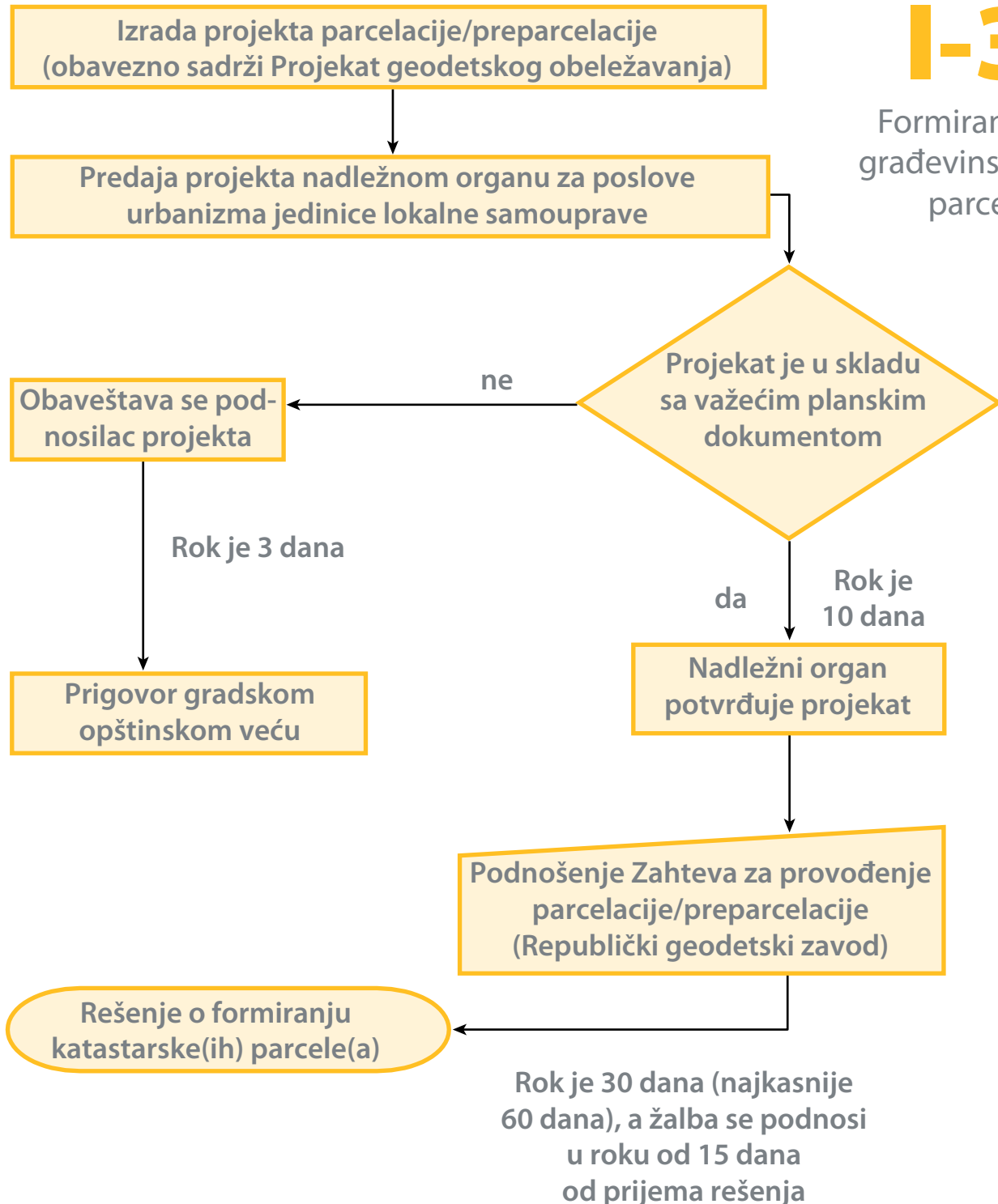
I-3

Uslovi za priključenje



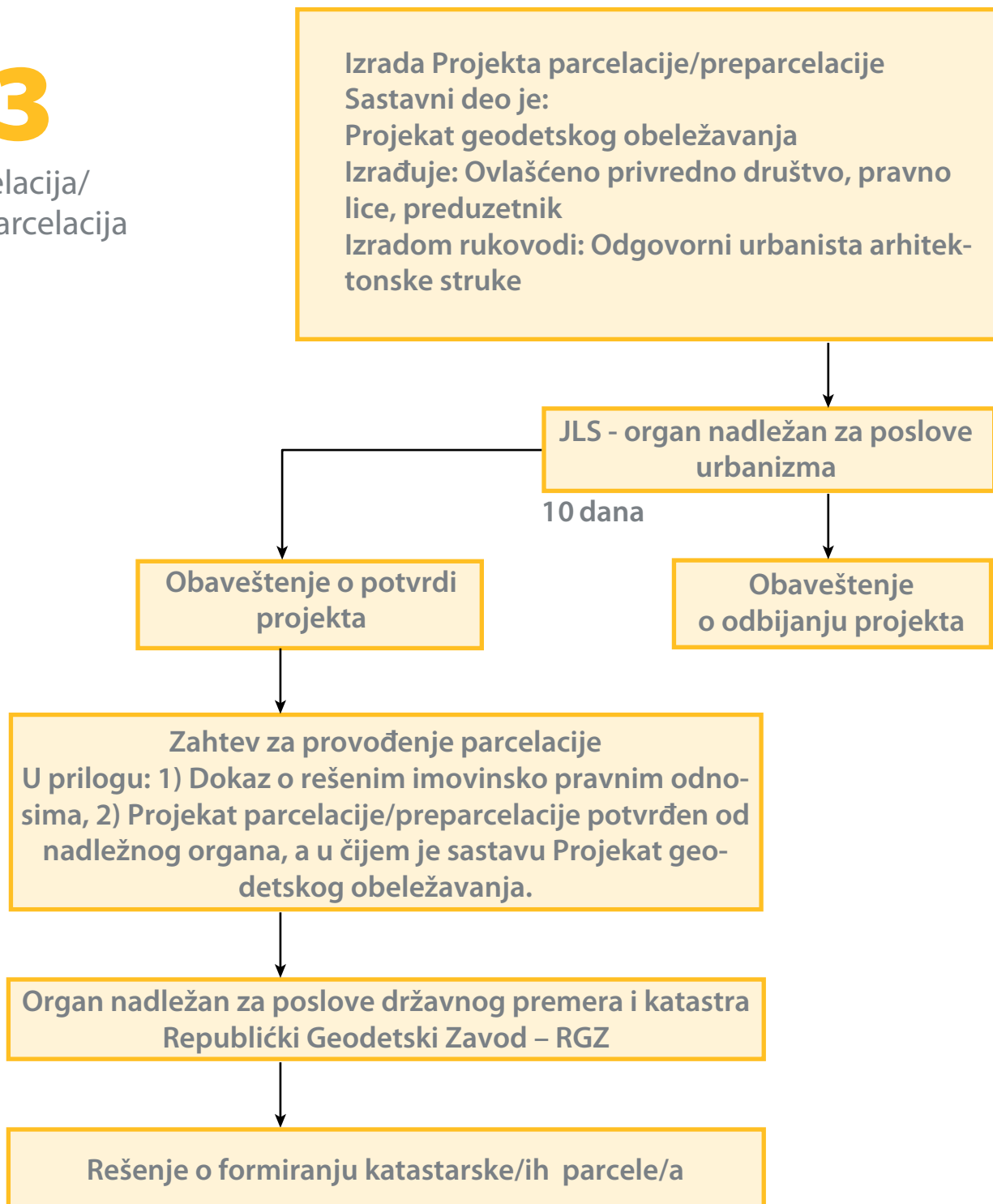
I-3

Formiranje
građevinske
parcele



I-3

Parcelacija/ preparcelacija



Osnovni koraci od ideje do korišćenja elektrane
Sticanje prava na izgradnju elektrane

• **Vodna akta**

- vodni uslovi (I-3)
- vodna saglasnost (I-4)
- vodna dozvola (I-5)
- vodni nalog

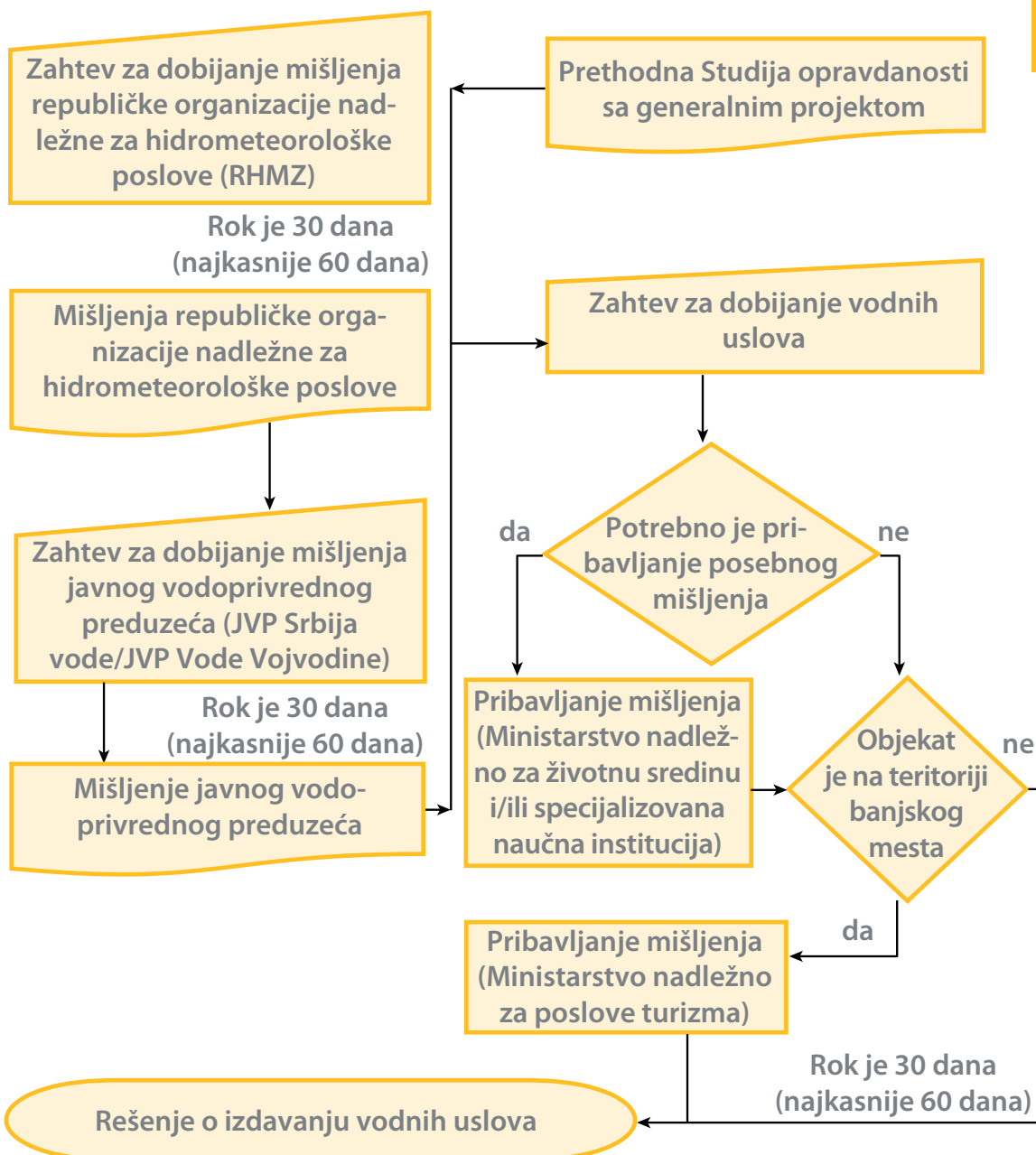
• **Nadležnost**

- nadležni organ jedinice lokalne samouprave

* *Potrebna su ukoliko objekat utiče na vodni režim*

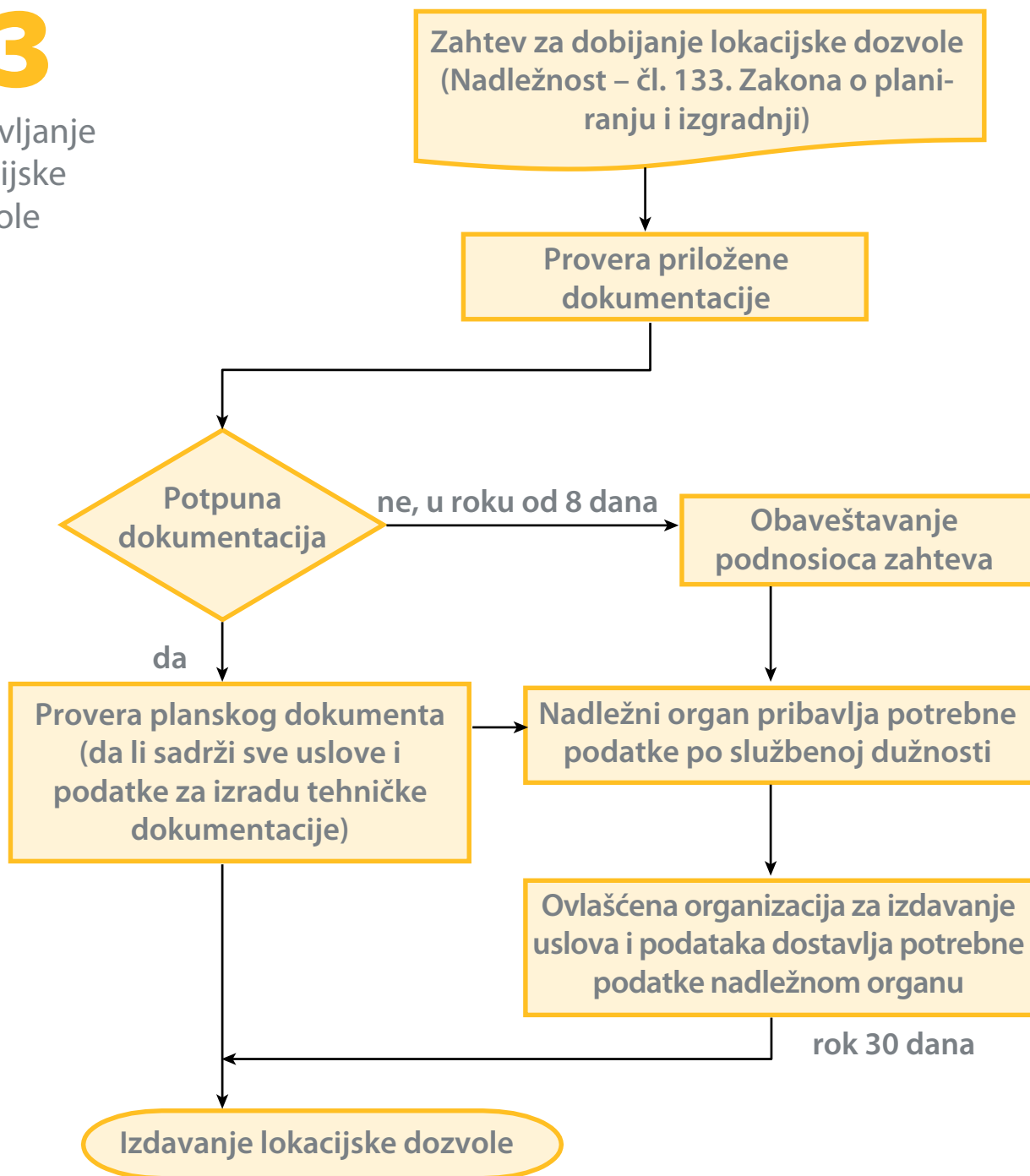
I-3
Vodna akta

I-3
Vodni uslovi



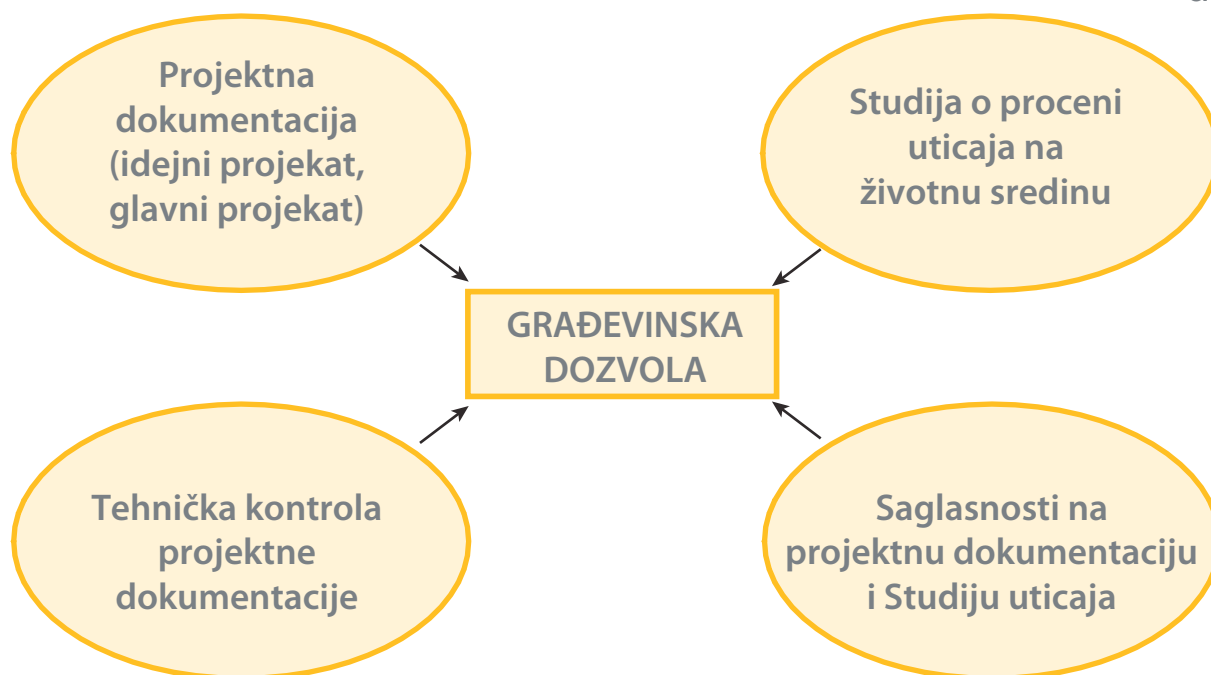
I-3

Pribavljanje
lokacijske
dozvole



I-4

Građevinska dozvola

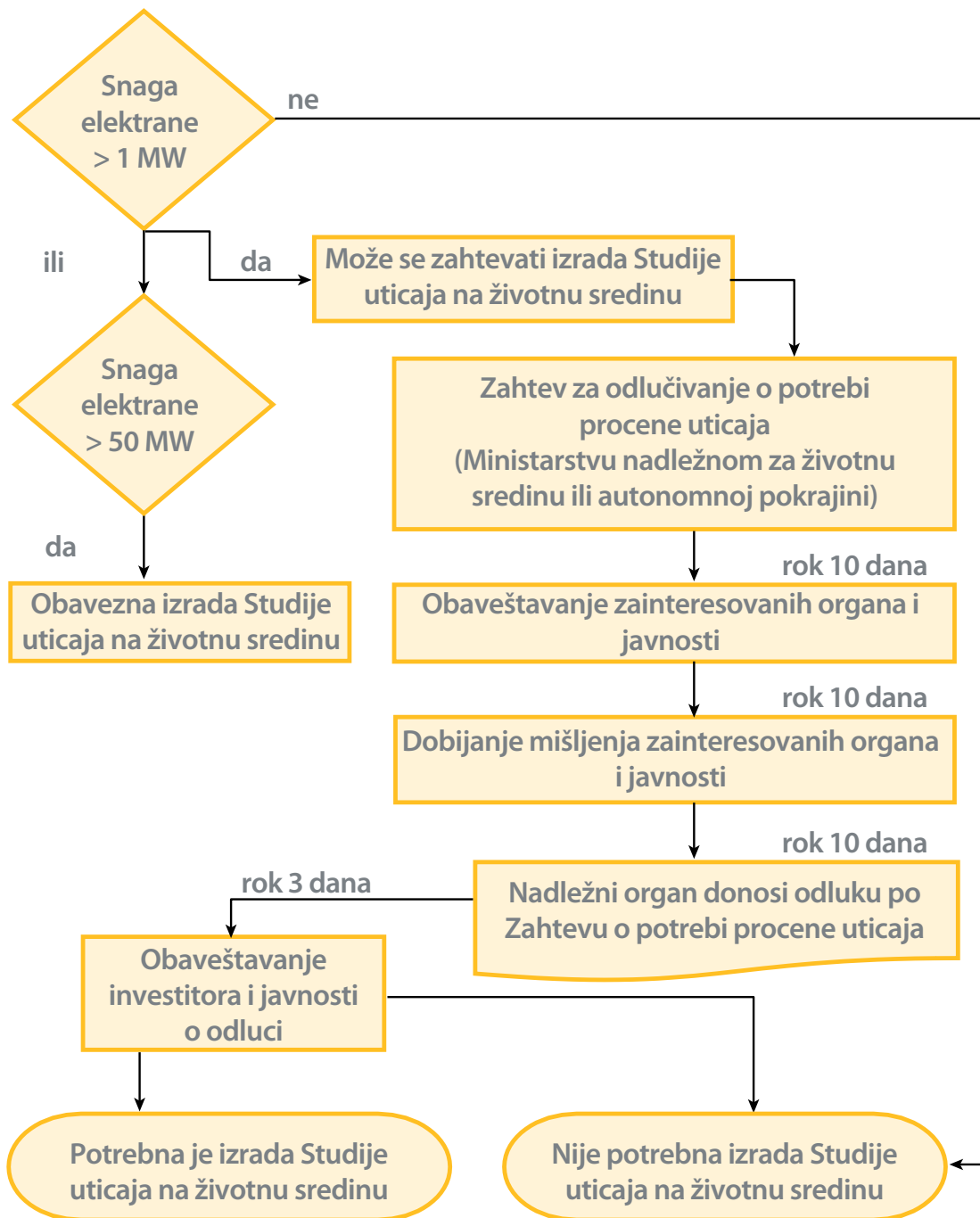


Po izvršenoj tehničkoj kontroli glavnog projekta i pozitivnom izveštaju o izvršenoj tehničkoj kontroli, podnosi se Zahtev za izdavanje Građevinske dozvole nadležnom organu iz člana 133. Zakona o planiranju i izgradnji:

- Ministarstvo nadležno za poslove građevinarstva
- Ukoliko se elektrana nalazi na teritoriji autonomne pokrajine – sekretarijatu autonomne pokrajine nadležnom za poslove građevinarstva

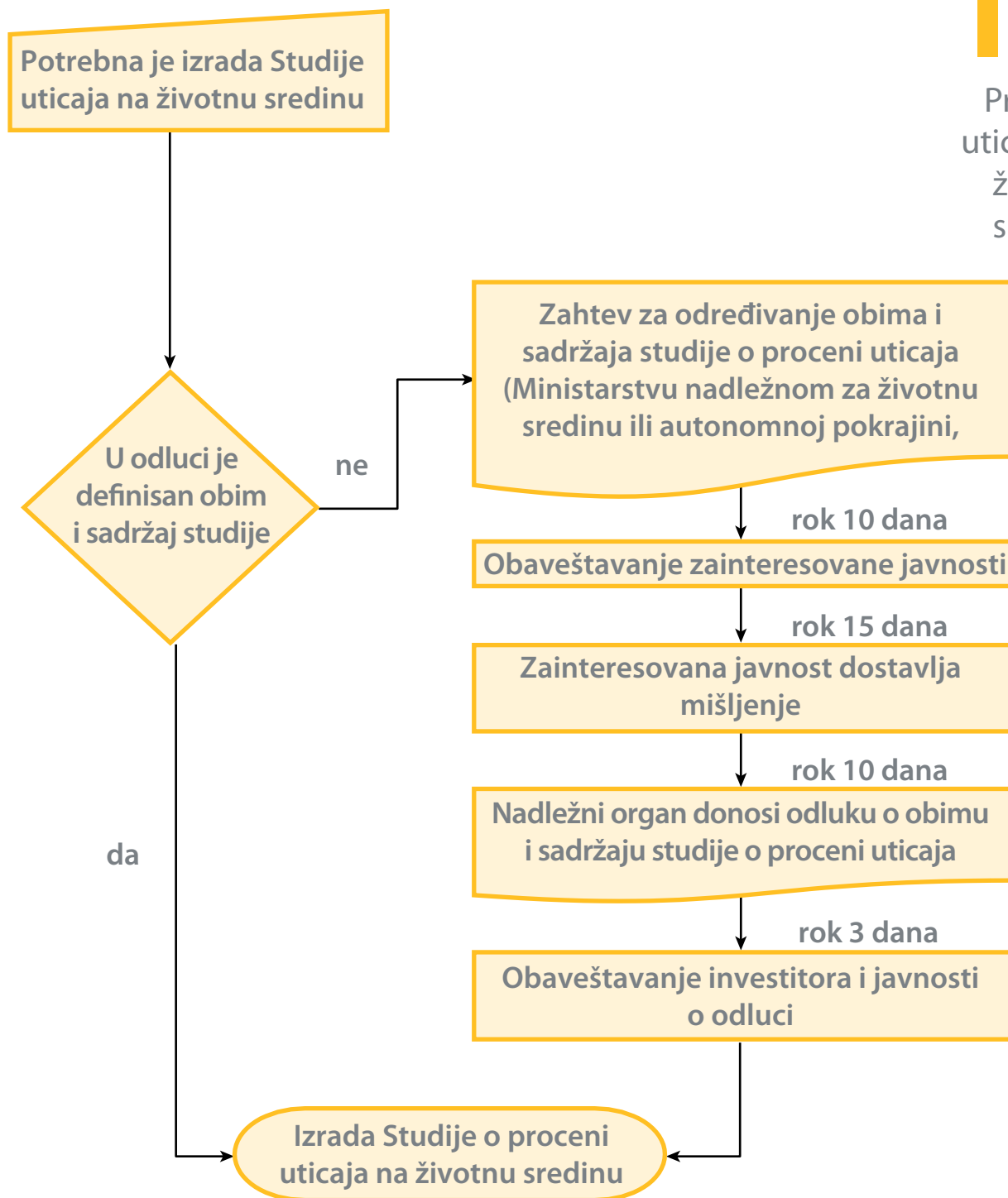
I-4

Procena uticaja na životnu sredinu (1)



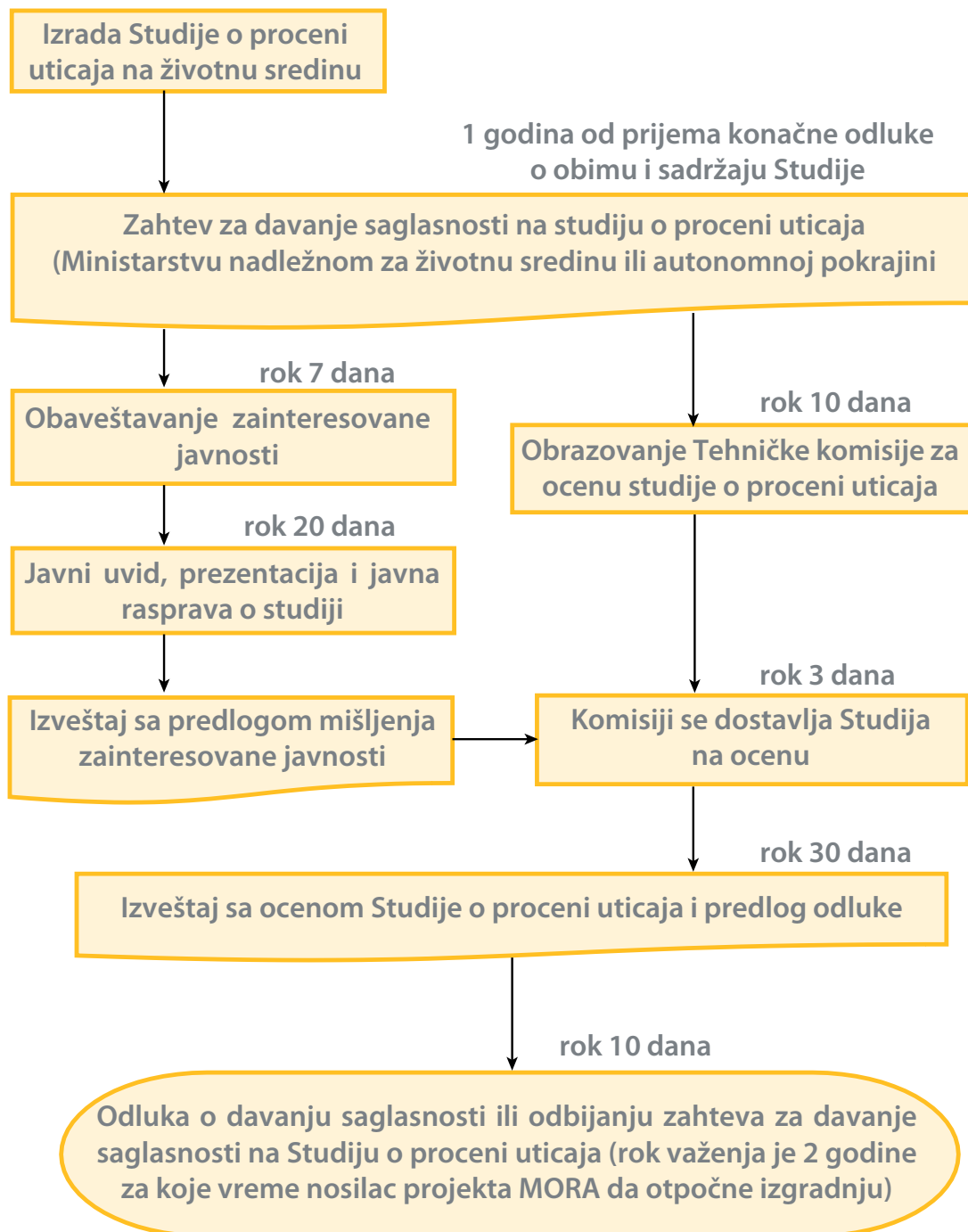
I-4

Procena uticaja na životnu sredinu (2)



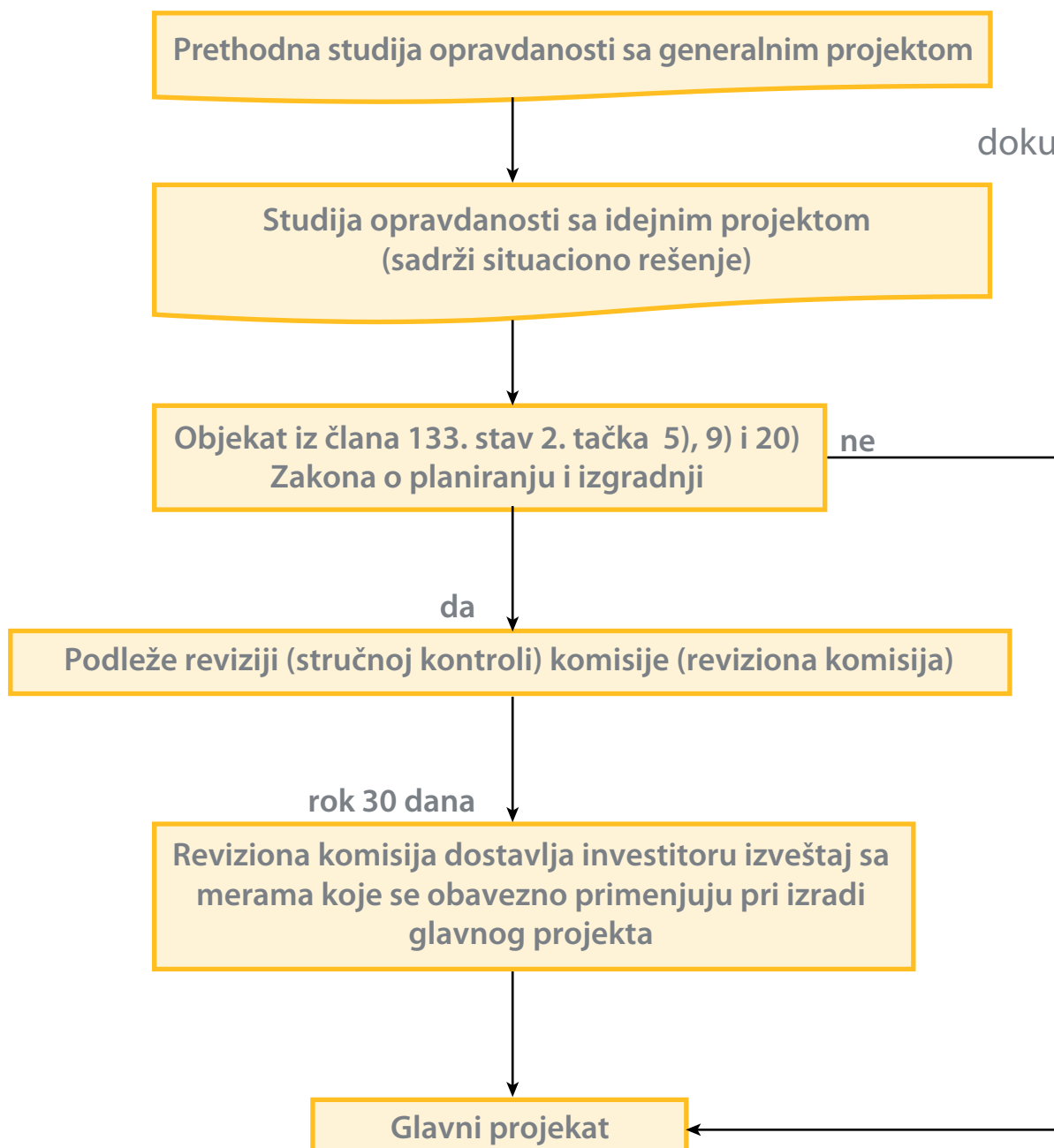
I-4

Procena
uticaja na
životnu
sredinu
(3)



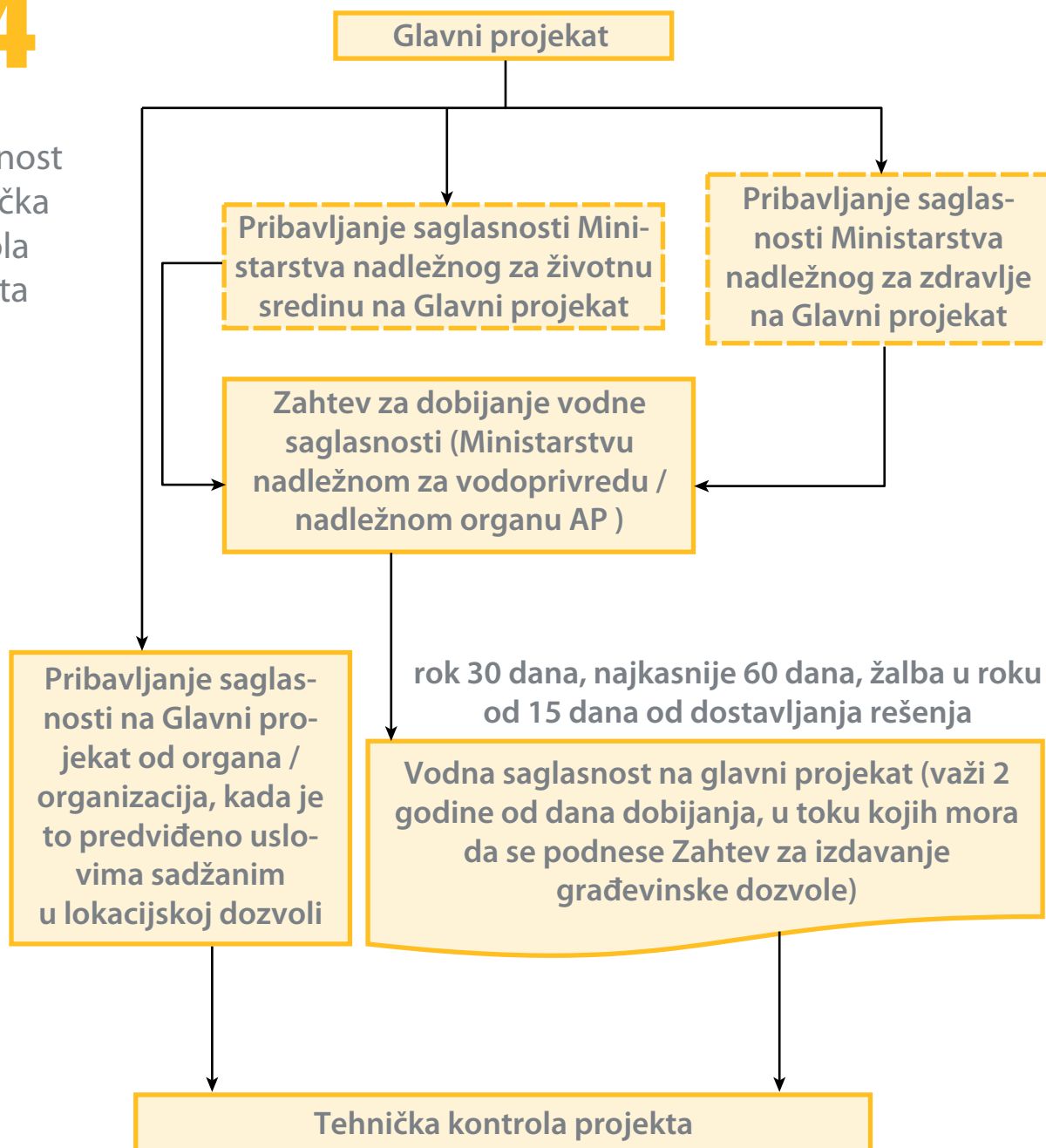
I-4

Tehnička dokumentacija



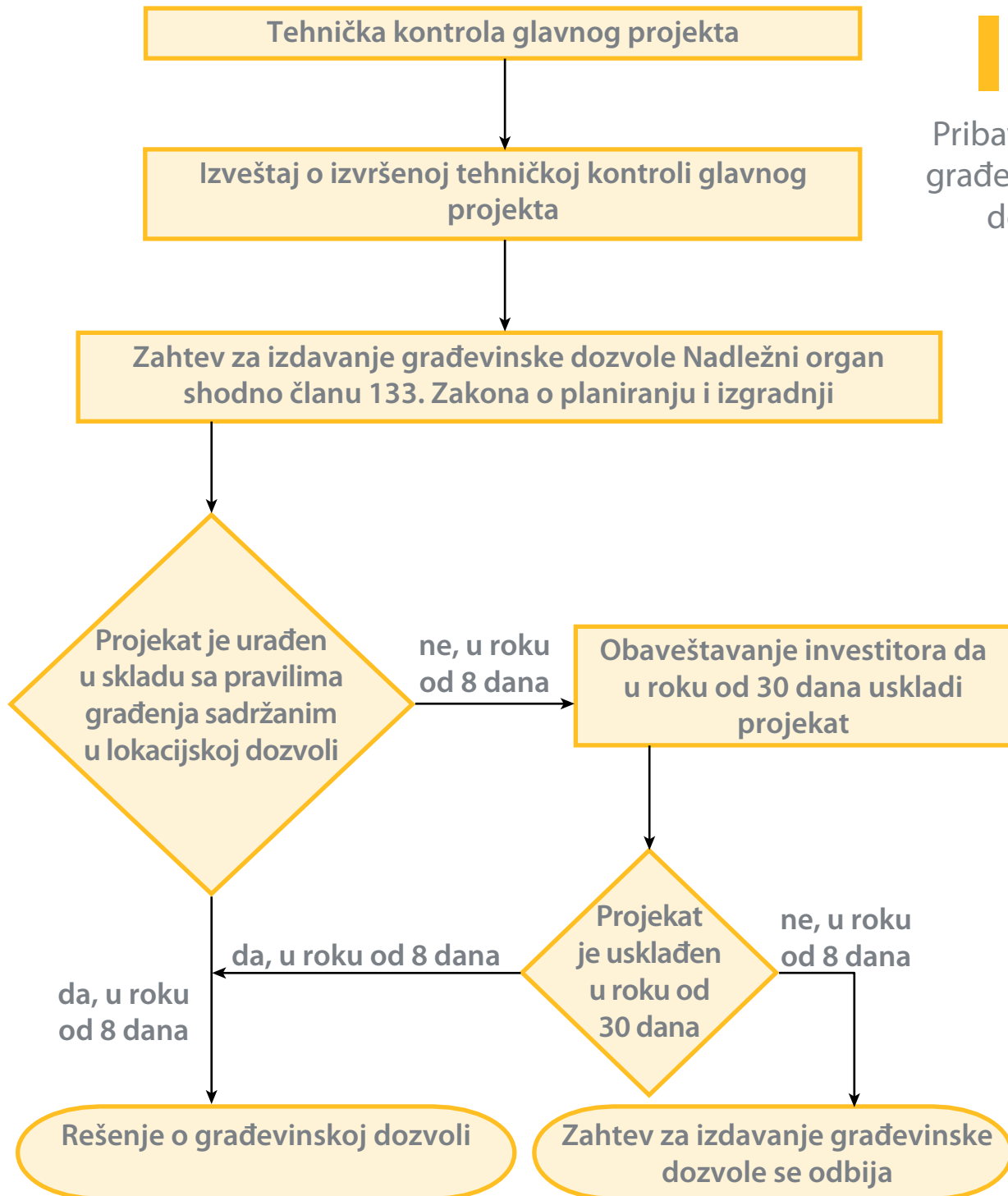
I-4

Vodna
saglasnost
i tehnička
kontrola
projekta



I-4

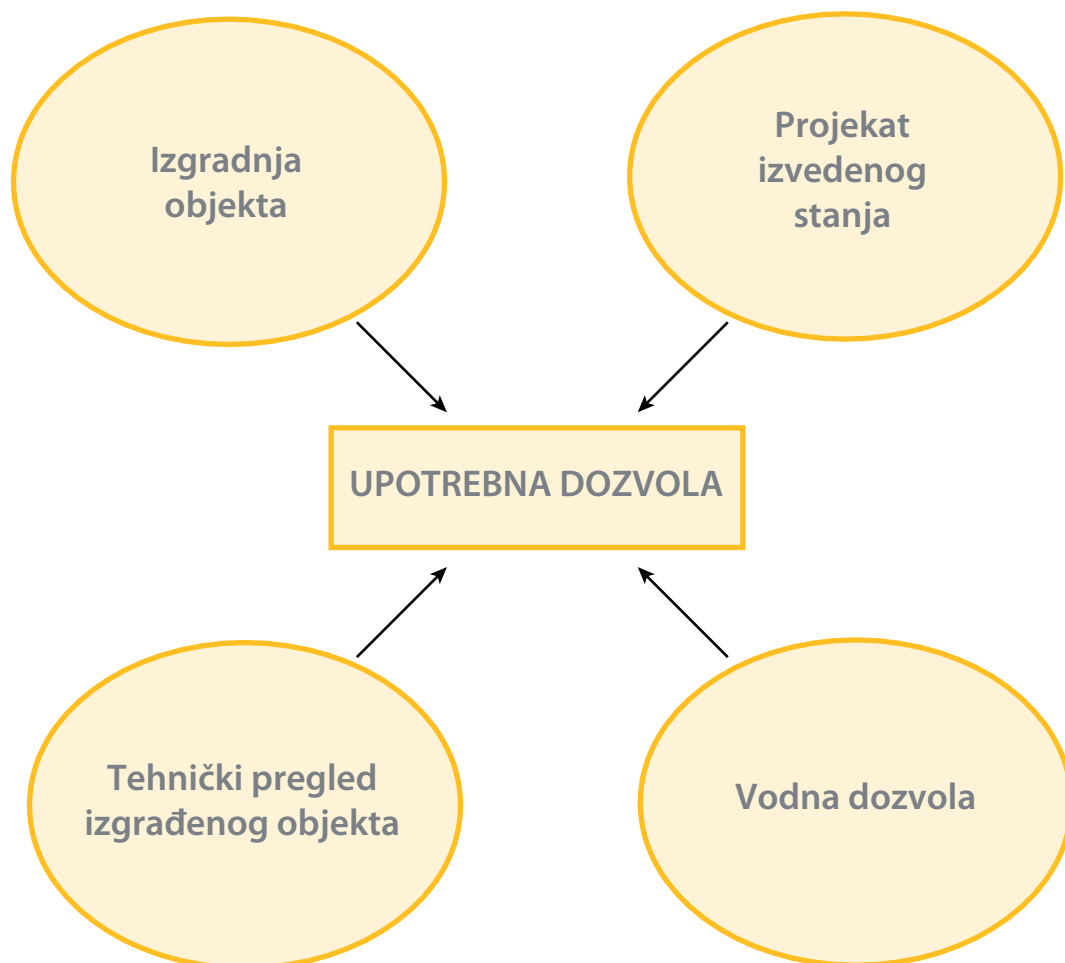
Pribavljanje građevinske dozvole



I-5

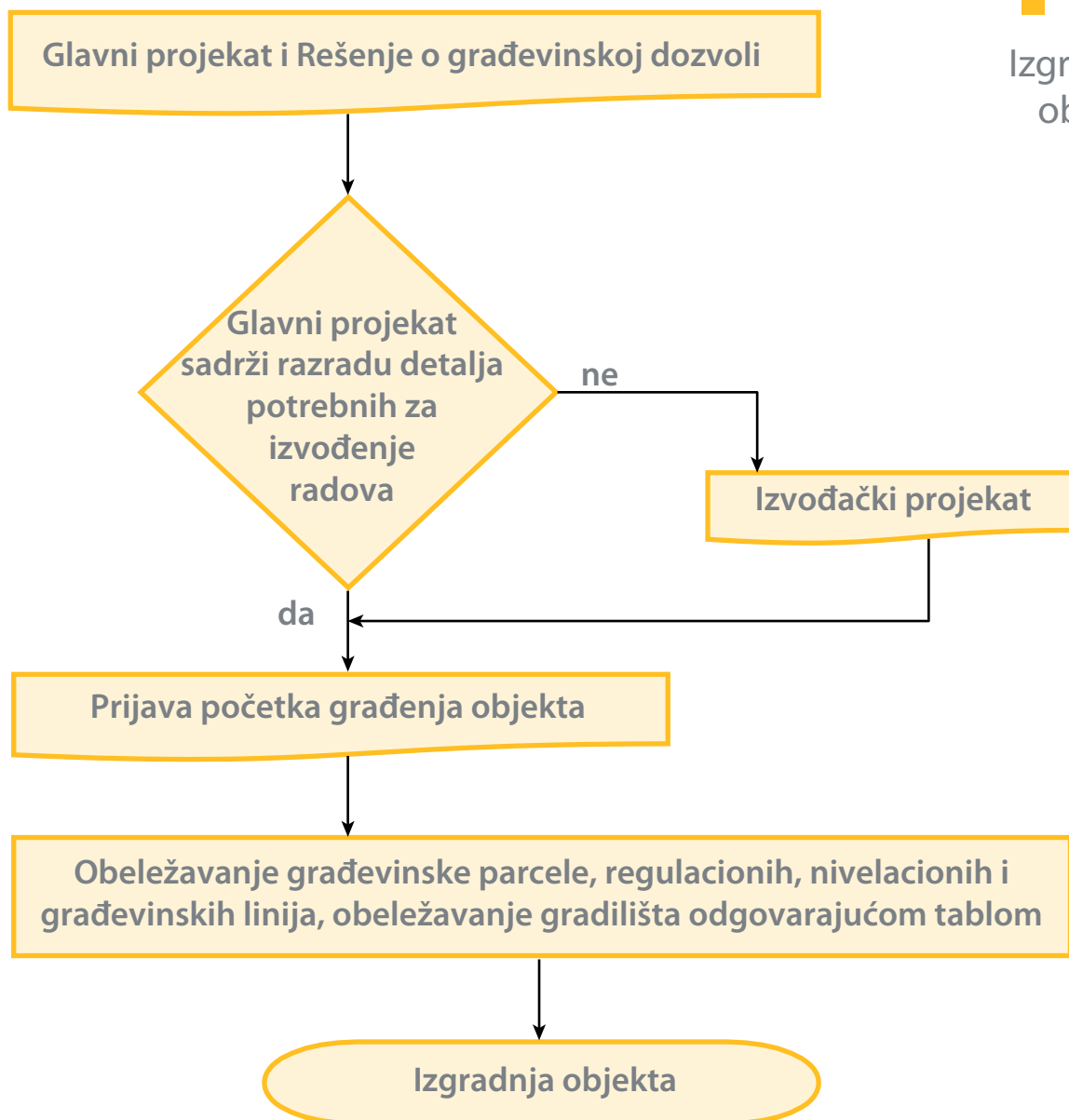
Upotrebna dozvola

- Podobnost objekta za upotrebu utvrđuje se tehničkim pregledom
- Objekat se može koristiti po prethodno pribavljenoj upotrebnoj dozvoli
- U procesu dobijanja Upotrebne dozvole potrebno je priložiti Projekat izvedenog stanja



I-5

Izgradnja objekta



I-5

Izgradnja objekta

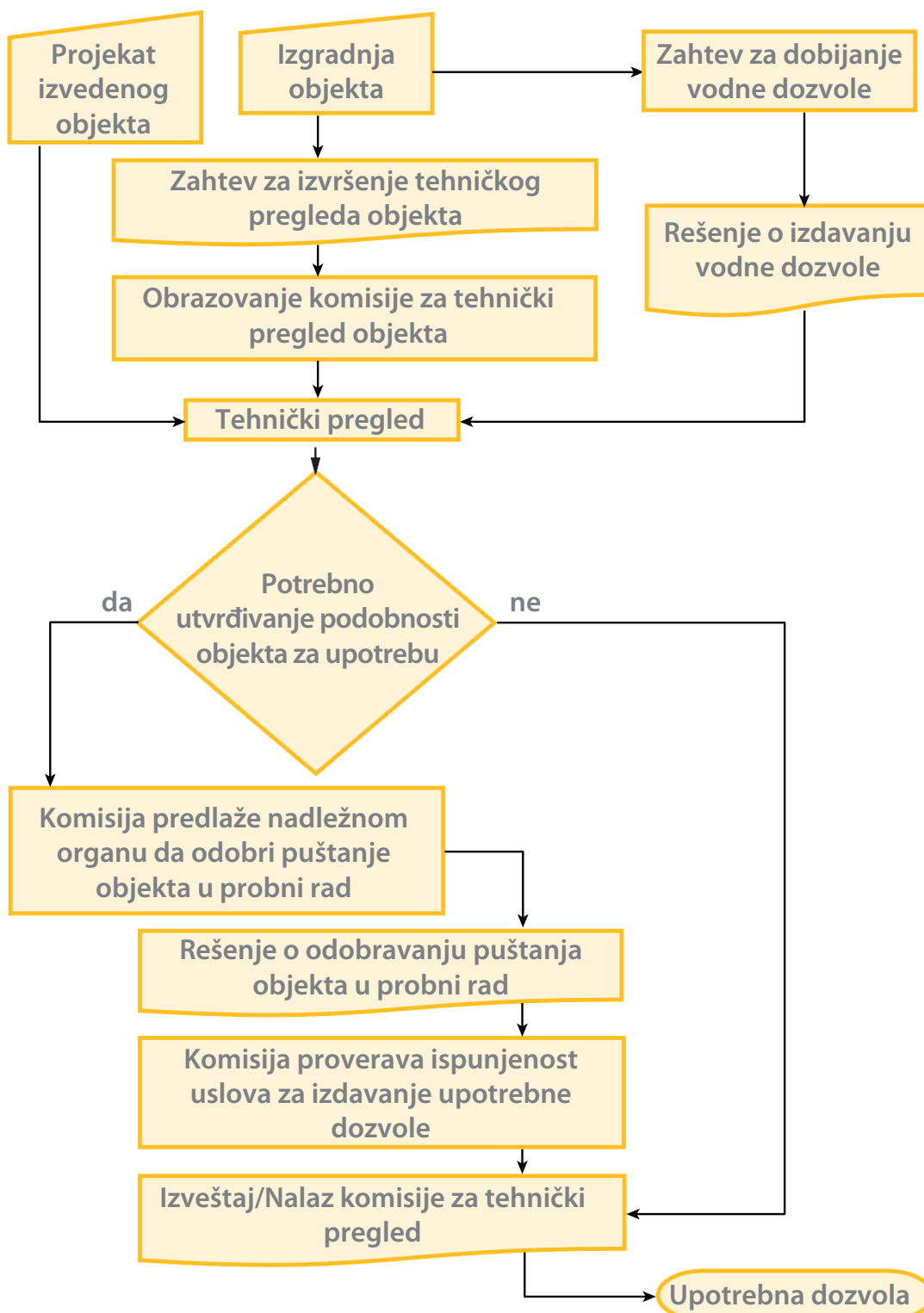
- Građenje objekata, odnosno izvođenje radova, može da vrši privredni subjekat upisan u odgovarajući registar za građenje objekata, odnosno za izvođenje radova (izvođač radova)
- Obaveze izvođača radova su da: pre početka radova potpiše glavni projekat, rešenjem odredi odgovornog izvođača radova, odgovornom izvođaču radova obezbedi ugovor o građenju i dokumentaciju na osnovu koje se gradi objekat, obezbedi preventivne mere za bezbedan i zdrav rad u skladu sa zakonom, da izvodi radove prema dokumentaciji na osnovu koje je izdata građevinska dozvola, organizuje gradilište na način kojim će obezbediti pristup lokaciji, obezbeđuje sigurnost objekta i lica na gradilištu i okoline, obezbeđuje dokaz o kvalitetu izvršenih radova, vodi građevinski dnevnik, građevinsku knjigu i obezbeđuje knjigu inspekcije, obezbeđuje objekte i okolinu u slučaju prekida radova
- Na gradilištu je potrebno da se stalno nalazi ugovor o građenju, rešenje o određivanju odgovornog izvođača radova na gradilištu i glavni projekat, tj dokumentacija na osnovu koje se projekat gradi
- Investitor obezbeđuje stručni nadzor u toku građenja objekta, odnosno izvođenja radova za koje je izdata građevinska dozvola

Osnovni koraci od ideje do korišćenja elektrane
Sticanje prava na izgradnju elektrane

I

I-5

Tehnički pregled i
upotrebna
dozvola



Osnovi koraci od ideje do korišćenja elektrane



Sticanje prava na obavljanje delatnosti proizvodnje električne energije

Proizvodnja električne energije



tržišna delatnost

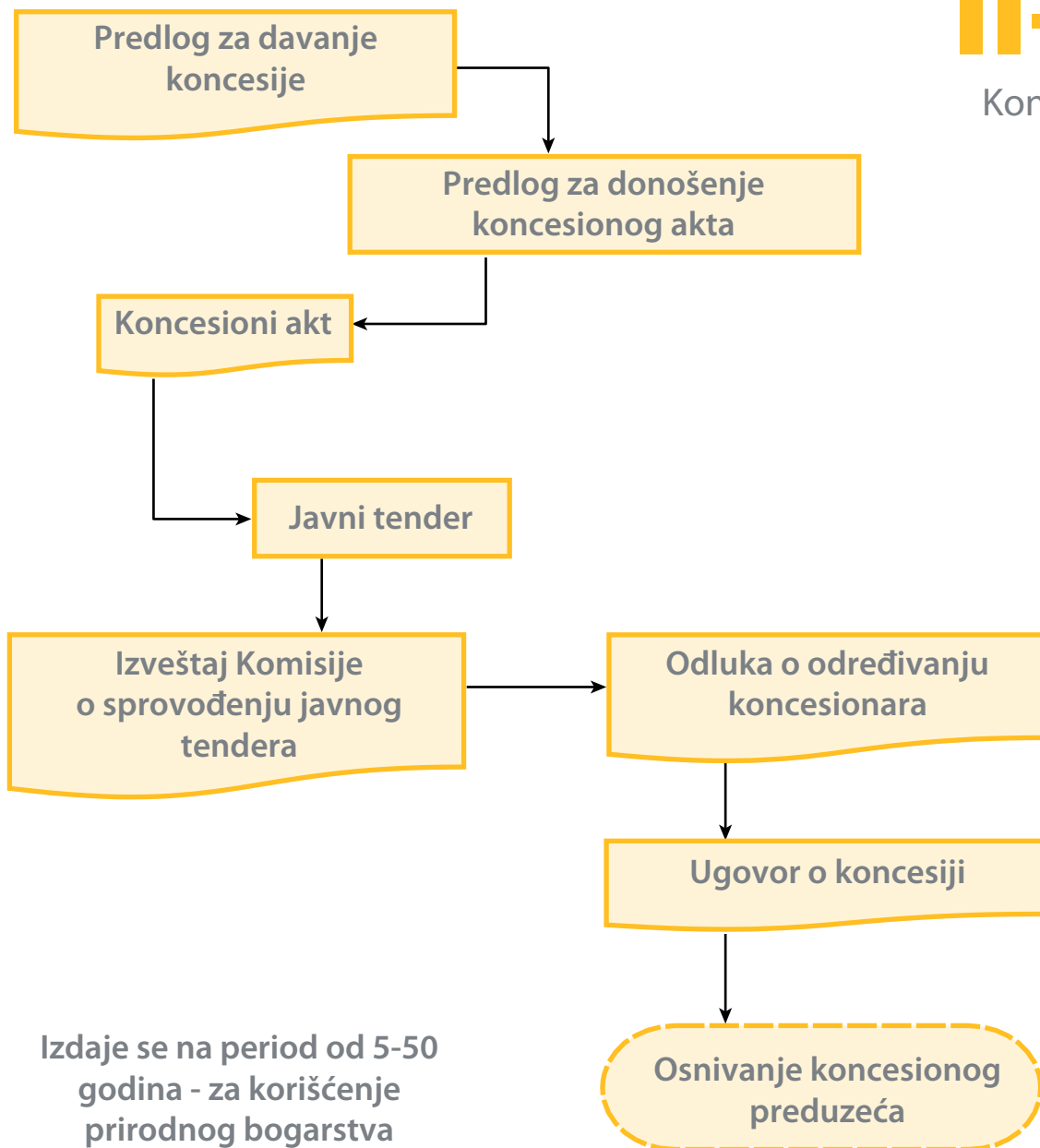
- II-1 Koncesija za korišćenje prirodnog bogarstva*
- II-2 Licenca
- II-3 Odobrenje za priključenje
- II-4 Status povlašćenog proizvođača
- II-5 Ugovor o otkupu električne energije

** mogućnost shodno zakonu koji uređuje koncesije*



II-1

Koncesija



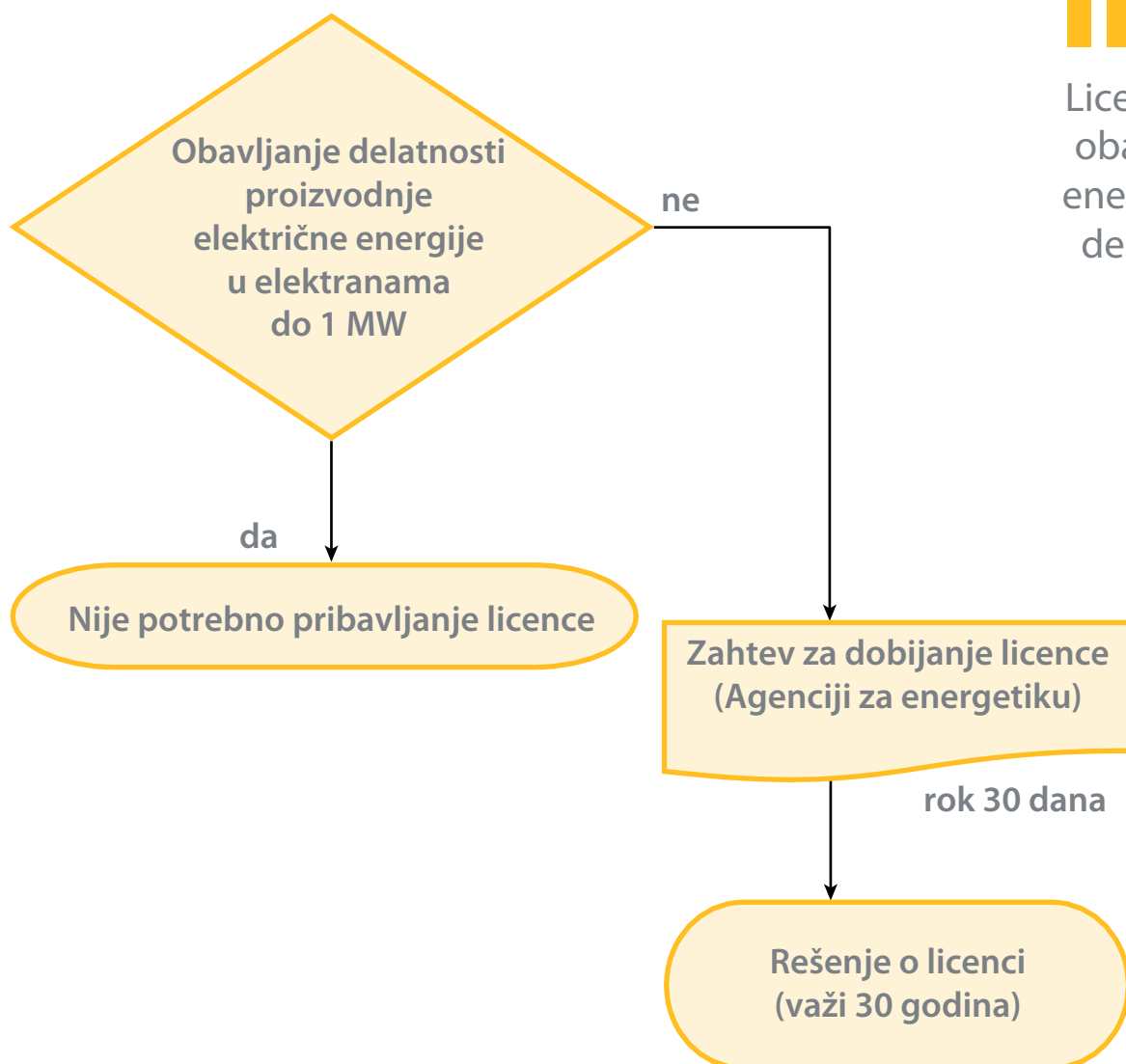
III-1

Koncesija – sadržaj ugovora o koncesiji

- Ugovorne strane, predmet koncesije, uključujući opis objekata, uređaja, postrojenja
- Rok trajanja koncesije i uslovima pod kojim se taj rok može produžiti, dužini trajanja pripremnih radnji
- Raspodela rizika između privatnog i javnog partnera i obim isključivih prava privatnog partnera
- visini i načinu obezbeđenja garancija za izvršavanje koncesione obaveze.
- Uslovi obavljanja koncesione delatnosti i standardi proizvoda i usluga, transferu tehnologije
- Koncesionaj naknada (visina, rokovi, uslovi i način plaćanja)
- Prava i obaveze u pogledu preduzimanja mera obezbeđivanja opšte sigurnosti, zaštite zdravlja i zaštite životne sredine kao i odgovornosti za naknadu štete prouzrokovane ugrožavanjem opšte sigurnosti i zaštite životne sredine
- Prava na prenos koncesije
- Vreme i način predaje nepokretnosti, objekta, uređaja ili postrojenja i stanju u kome se oni moraju predati
- Uslovi izmena ili raskida ugovora i njihovim posledicama, promenjenim okolnostima i višoj sili.
- Način rešavanja sporova i primena merodavnog prava
- Druge odredbe o kojima se sporazumno dogovore ugovorne strane. Ugovorom se određuje i način međusobnog obaveštavanja o izvršenju ugovora, načinu vršenja kontrole izvršenja ugovora i ostvarivanja prava i obaveza ugovornih strana

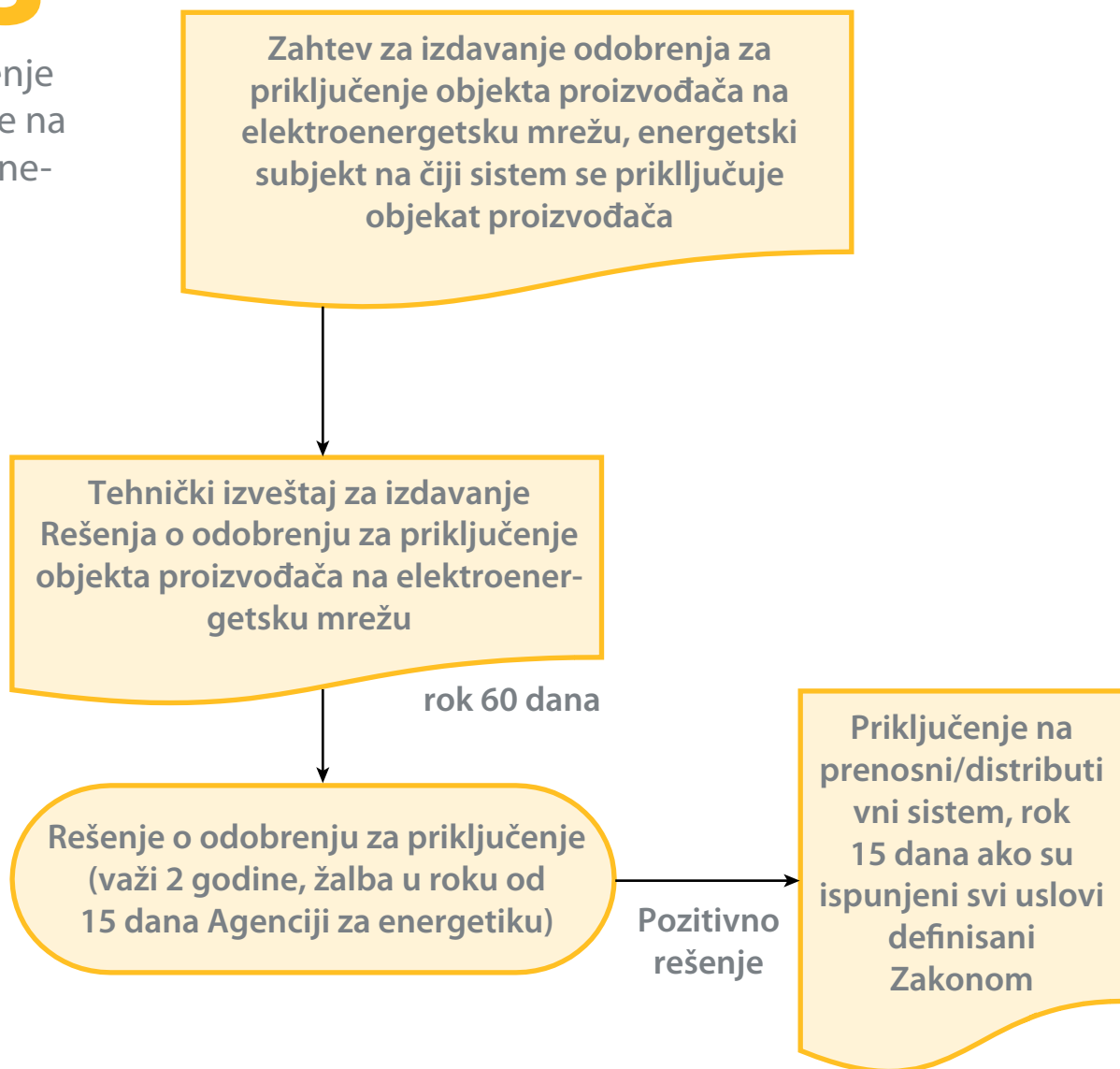
II-2

Licenca- za obavljanje energetske delatnosti



II-3

Priključenje elektrane na elektroenergetsku mrežu



Osnovni koraci od ideje do korišćenja elektrane
Sticanje prava na obavljanje proizvodnje električne energije



II-4

Status povlašćenog proizvođača

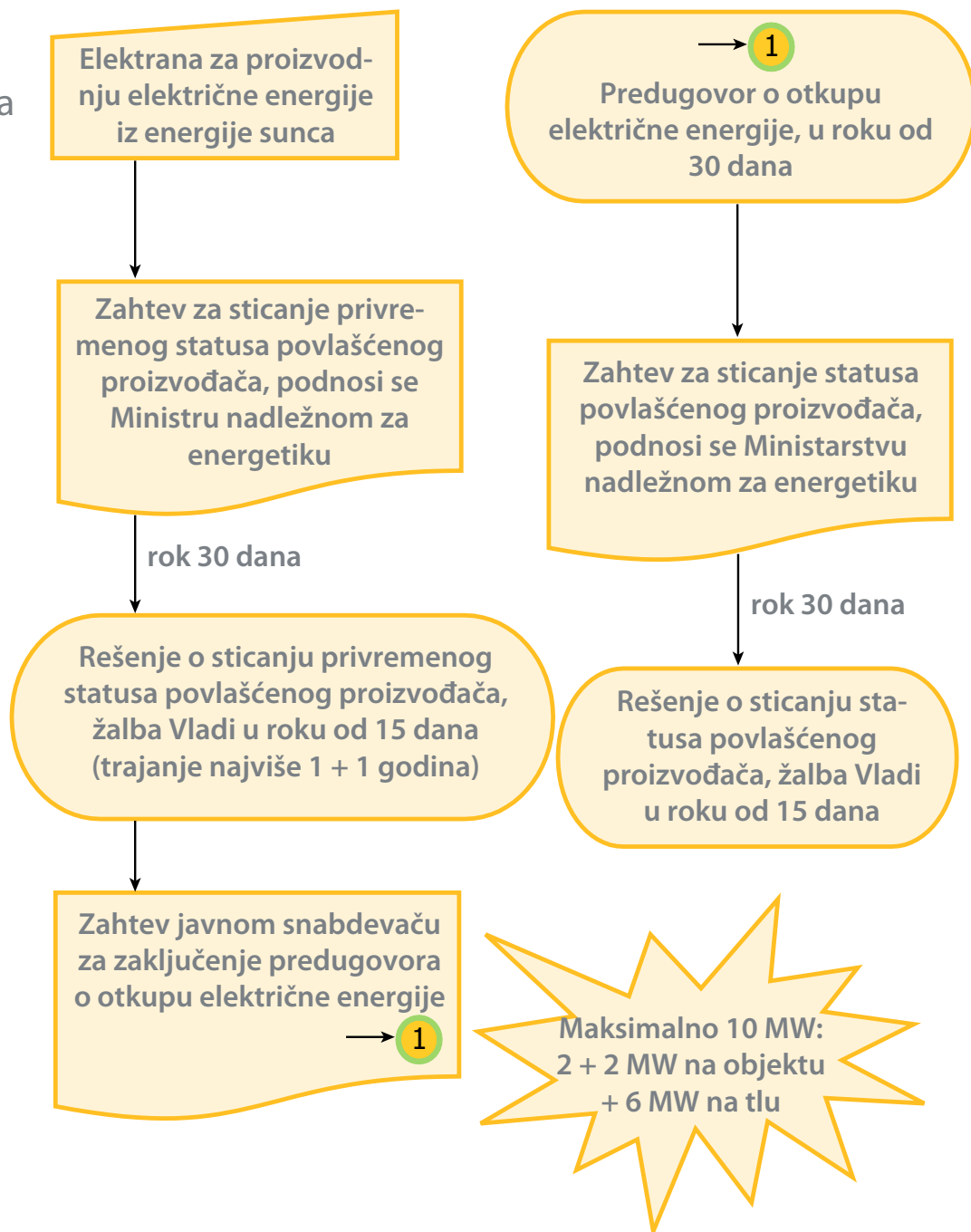
- Pravo prvenstva pri preuzimanju ukupno proizvedene električne energije u prenosni ili distributivni sistem, osim u slučaju kada je ugrožena sigurnost rada tih sistema
- Pravo na subvencije (poreske, carinske i druge olakšice)
- Mere podsticaja: 1) podsticajni period; 2) preuzimanje balansne odgovornosti; 3) besplatno očitavanje o proizvedene energije 4) pravo da nakon prestanka podsticajnog perioda zaključi ugovor sa javnim snabdevačem po ceni na organizovanom tržištu; 5) podsticajna otkupna cena:

Instalisana snaga solarne elektrane P (MW)	Mera podsticaja - otkupna cena (c€/1 kWh)
Na objektu do 0,03	20,66
Na objektu 0,03 – 0,5	20,941 – 9,383*P
Na zemlji	16,25

- Mere podsticaja za povlašćene proizvođače koji su stekli privremeni status povlašćenog proizvođača: 1) pravo da prodaje javnom snabdevaču ukupno proizvedenu električnu energiju tokom podsticajnog perioda po podsticajnoj ceni koja je važila u trenutku sticanja privremenog statusa povlašćenog proizvođača; 2) iznos proizvedene električneenergije tokom prodsticajnog perioda po podsticajnoj ceni koja je važila u trenutkusticanja privremenog statusa povlašćenog proizvođača

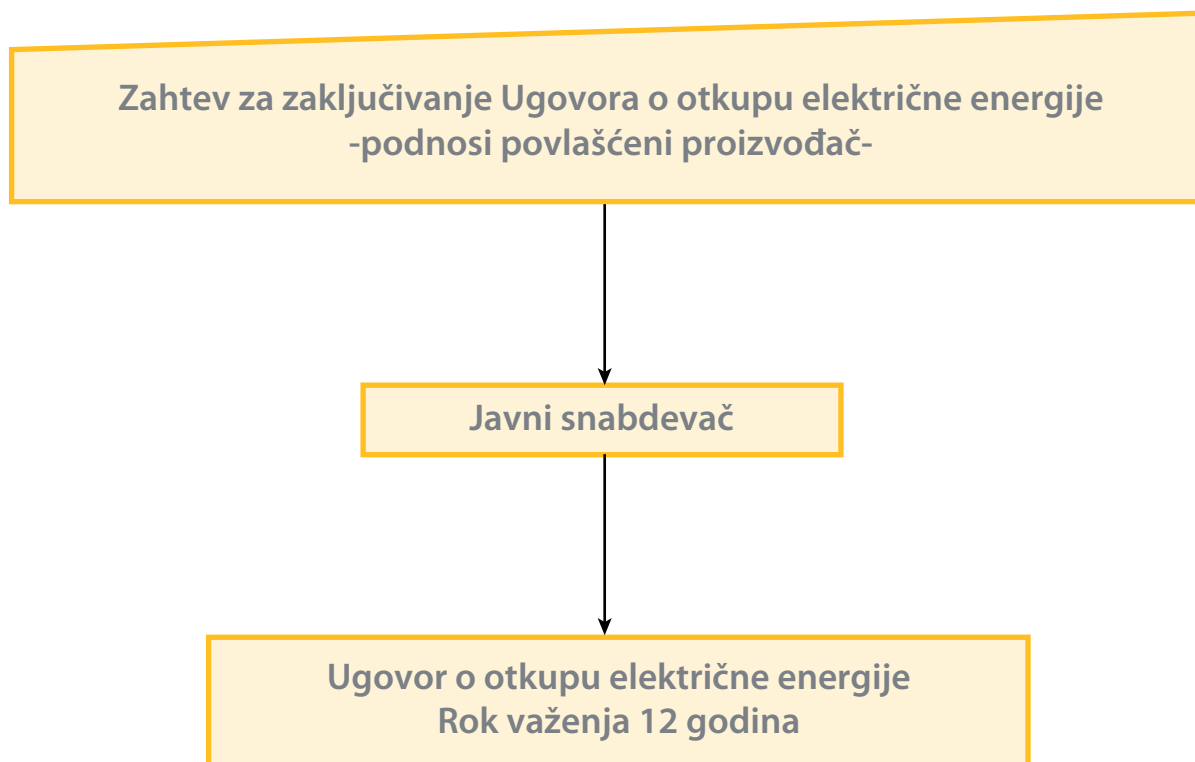
II-4

Sticanje statusa povlašćenog proizvođača



II-5

Ugovor o otkupu električne energije



Posebni slučajevi izgradnje solarnih kolektora i solarnih ćelija

- Član 144. Zakona o planiranju i izgradnji
 - Solarni kolektori ⇨ jednostavni objekti
 - Nije potrebno pribavljanje lokacijske i građevinske dozvole
 - Uslovi:
 - grade se na istoj katastarskoj parceli na kojoj je sagrađen glavni objekat, na način da ne ometaju izgled zgrada, susedne objekte i pešačke staze
 - Član 145. Zakona o planiranju i izgradnji
 - Solarni kolektori, solarne ćelije, kao i pomoćni ili ekonomski objekti
 - Nije potrebno pribavljanje građevinske dozvole, već samo rešenje za izvođenje radova
 - Dokumentacija: 1) dokaz o pravu svojine, 2) Idejni, odnosno glavni projekat, 3) Informacija o lokaciji za pomoćni objekat, 4) Dokaz o uređenju plaćanja naknade za gradsko građevinsko zemljište za izgradnju tih objekata
 - Može se izdati upotrebna dozvola
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Garancija porekla

- Dokument koji ima isključivu funkciju da dokaže krajnjem kupcu da je dati udeo ili količina energije proizvedena iz obnovljivih izvora energije, kao i iz kombinovane proizvodnje električne i toplotne energije sa visokim stepenom iskorišćenja primarne energije
- Garanciju porekla izdaje operator prenosnog sistema za jediničnu količinu proizvedene energije od 1 MWh
- Garancija je dokument u elektronskom obliku i važi godinu dana od dana izdavanja
- Prenosiva je
- Garancija porekla izdata u drugim državama važi pod uslovima reciprociteta i u Republici Srbiji i u skladu sa potvrđenim međunarodnim ugovorom

