

Clean energy for EU islands

FORUM 2022

FROM CLEAN ENERGY

VISION TO CLEAN ENERGY

ACTION



17-18 May 2022
Rhodes, Greece

**SHAPE Regulatory
session:**

**Conclusions from
the regulatory
studies**

**Simplifying permitting
procedure**

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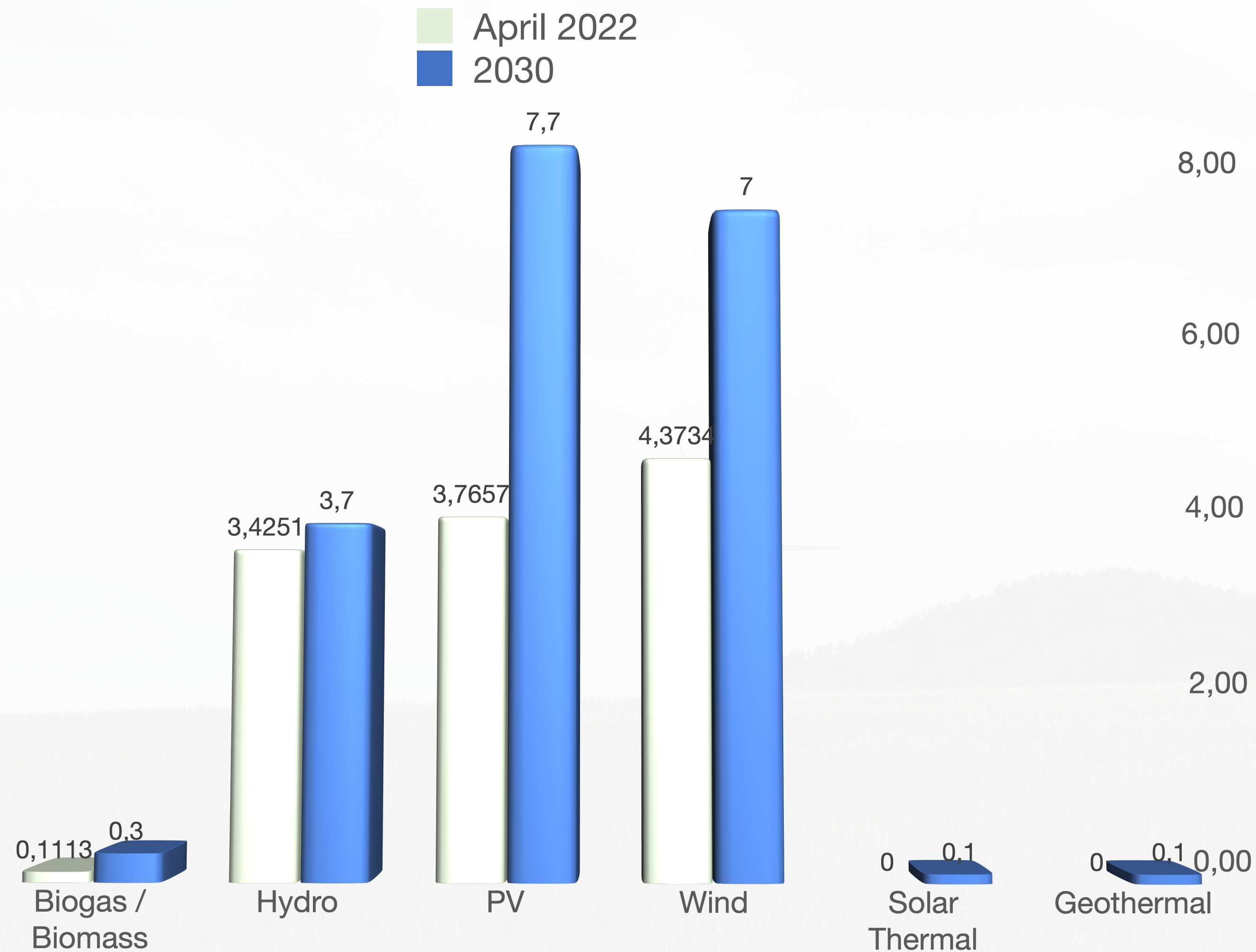


GREENING THE ENERGY MIX

Greece has set ambitious targets regarding the energy and the environment for the future, through the National Plan for Energy and Climate (NECP).

TARGET YEAR 2030	UPDATED NECP
Reduction of GHG emissions (Reference year 1990)	>55%
Share of RES in the Energy Mix	>40%
Share of RES in the Gross final energy consumption	>35%
Share of RES in gross electricity consumption	61-64%
Final energy consumption	~38% increase in energy efficiency (compared to 2007 projections)
Lignite share in Power Generation	0%

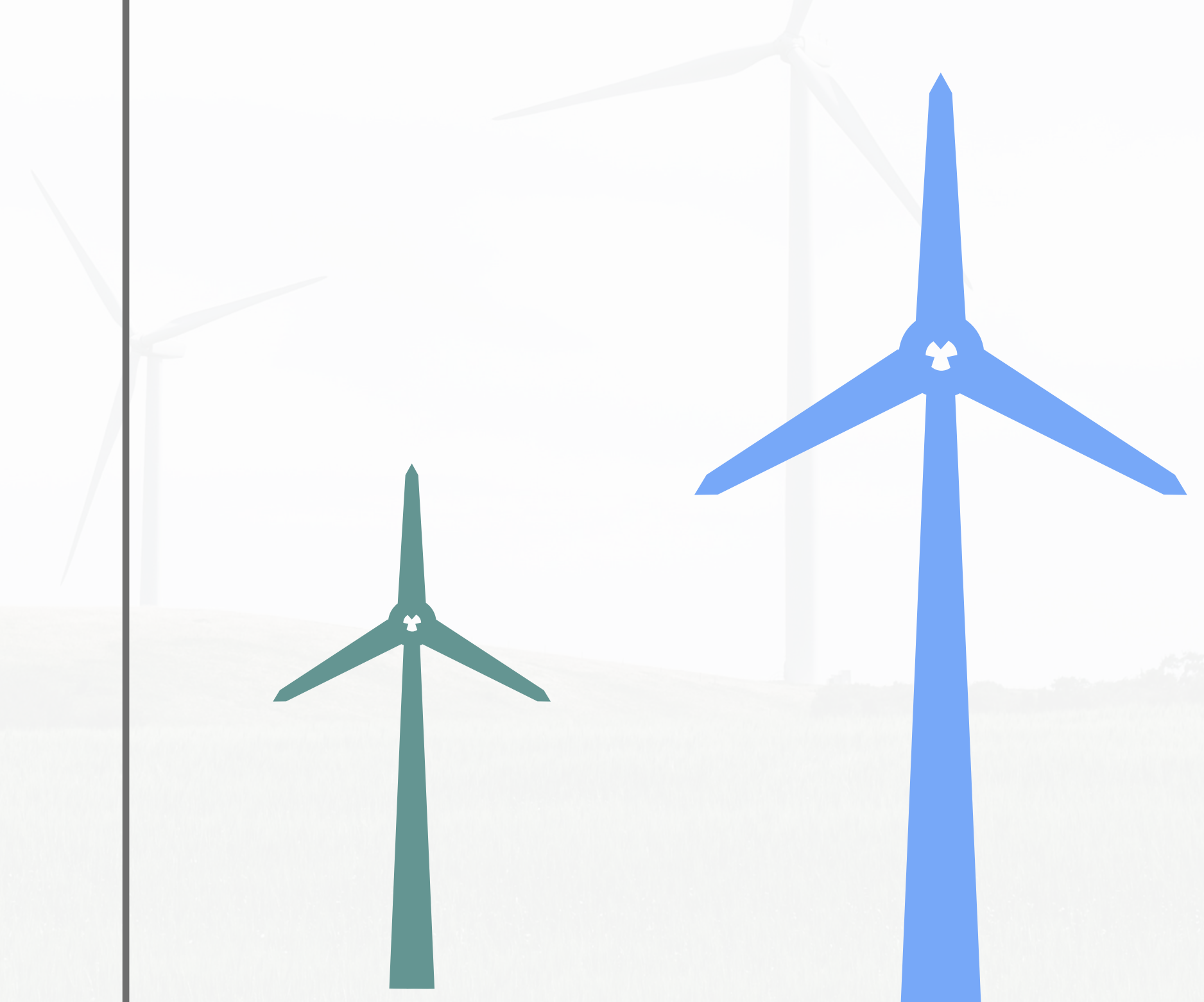
TOWARDS A **GREEN** ECONOMY WITH RES



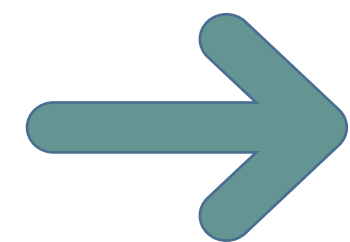
INSTALLED CAPACITY

APRIL 2022
11,7 GW

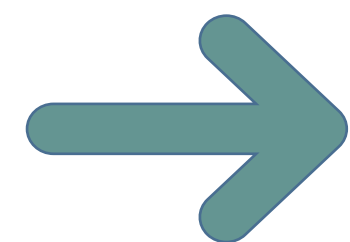
2030
(NECP TARGET)
18,7 GW



INVESTMENTS ARE THE KEY FOR THE GREEK ENERGY TRANSITION



To reach the RES goal, approximately ~8 GW of new RES capacity from 2020 to 2030 is needed according to NECP



Investments including storage will exceed €10 billion

SIMPLIFYING & ACCELERATING RES LICENCING PROCEDURE

- ✓ Speed Up the licensing process
- ✓ Decrease the licensing procedure from 6-8 years today to 2-3 years



☐ 1st Phase:

a) Replacement of the Production License with the Registration Certificate

Registration Certificate within 30 days

b) Reformation and simplification of Environmental framework

Environmental Approval within 150 days

☐ 2nd Phase: Simplification of Connection Terms, Installation & Operation Licenses

- ✓ Establishment of an One-Stop-Shop & a RES Information System to monitor the entire process
- ✓ Amendment of the licensing process from serial to parallel
- ✓ Separation of the required controls per licensing phase
- ✓ Relief the licensing bodies from large administrative burdens
- ✓ Reduction of the deadlines for responding to the requests of investors
- ✓ Filters and milestones as a proof of the financial ability & the real interest of investors
- ✓ Flexibility to the investors in the design & development of stations without the requirement to modify licenses and repeat all licensing from the beginning

Public Consultation

(Completed)

Simplification

- ✓ Standard forms and the absolutely necessary documents for the submission of requests
- ✓ Exemption for investors from continuous modifications of licenses
- ✓ Flexibility to investors on the application for Final Connection Offer & the electrification of the station
- ✓ Separation of the Connection Agreement into a Main Part and a Supplement

Digitalization

- ✓ One-Stop-Shop in the Ministry of Environment & Energy
- ✓ Interaction of all the individual information systems and databases of the competent licensing bodies
- ✓ Electronic communication between the investor and the competent body, digital submission of applications and issuance of the relevant licenses,
- ✓ Recording of the High and Medium Voltage Networks, which does not exist today
- ✓ Publish data at regular intervals by all parties involved in the licensing process

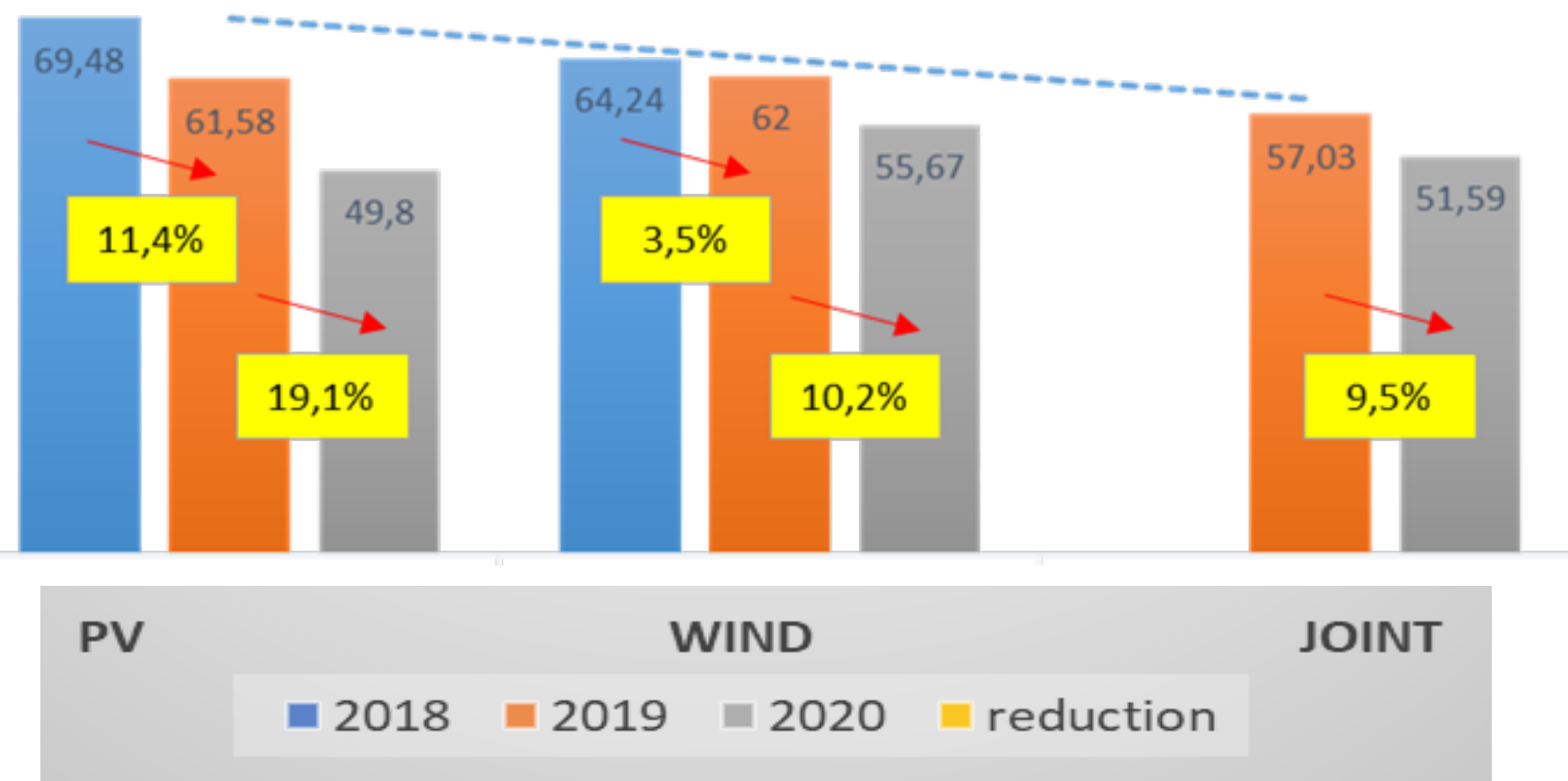
Acceleration

- ✓ Reduction of the number of supporting documents
- ✓ Relief the competent services from the control of the ownership status
 - For private lands the control will be carried out by an external lawyer
- ✓ Reduction of the deadlines for the System and Network Operators to complete the connection of the projects otherwise penalties are imposed
- ✓ Determination of a 3rd milestone for the investor in the phase of Installation License



The RES Auction Scheme (2018-2021)

RES auction yearly mean prices (€/MWh)



The last joint technology auction (05/2021)

- ✓ Mean price: 37,6 € / MWh
- ✓ Lowest awarded bid: 33 € / MWh
- ✓ 30.2% decrease of the ceiling price (54 € / MWh)

The new RES Auction Scheme (2022-2025)

“A prolongation of the existing auctions support scheme for renewables till 2025 has been secured”

Until 31 December 2025:

- at least 8 rounds of joint PV & Wind tenders, with a minimum cumulative auctioned capacity of 3GW
- Dedicated joint tenders for PV & wind with storage capacity (~200MW);
- Dedicated joint tenders for PV & wind in the islands of Crete, Euboea & Cyclades; (immature projects ~500MW)
- Technology specific tenders for small PV & Wind; (~250MW)

- ✓ Controlled RES penetration
- ✓ Selection of the best & most economically competitive projects

Storage, the medium to enhance RES penetration



MINISTRY OF
ENVIRONMENT
& ENERGY

STORAGE

- Storage needs of 1500 MW
(additional to existing 700 MW)
to support NECP targets for 2030

Categories / storage technologies:

- Large capacity (6 h): Pump storage
- Low capacity (2 h): Batteries

- Batteries Storage needs are expected to increase to higher levels:
 - New RES penetration targets (Fit for 55) and perspective beyond 2030
 - PV penetration increases the need for time shift of production
 - Network decongestion: additional needs / opportunities;

WHERE WE ARE TODAY

(Installed storage capacity)

690 MW - Pumping Storage Stations SFIKIA and THISAVROS of PPC SA - but they work mainly as "common" hydroelectric power stations.

WHERE ARE WE GOING

(NEW capacity until 2030 according to electricity market needs)

700 MW large capacity storage stations e.g. pumping storage

800 MW of small capacity storage stations e.g. batteries

The Investment Interest

- RAE has issued 140 production licenses with a total capacity of **10300 MW** (2000 MW of which are combined with RES stations)
- Additional 78 applications have been submitted for the production of licenses for stand alone storage stations with a total capacity of **4800 MW**

INSTALLATION OF STORAGE STATIONS BASED ON RRF PROVISIONS

By the end of 2025 will be installed:

- **680 MW** of the pumping & storage station of Amfilochia
- **700-800 MW** of batteries

STORAGE

Support scheme of storage power plants

HOW WE WILL GO

Enhancing the implementation of storage stations

- The operation of the electricity market does not guarantee the financial viability of storage stations => Creates a funding gap
- Greece, the first country in the EU that notified to Directorate-General for Competition the support scheme of electricity storage stations - EU approval
- Aid through investment & operating aid
- The investment aid is covered by Action "1.1 - Power up" of the RRF, thus reducing the charge to consumers
- RRF action "1.1 - Power Up" includes the financing of 700 MW batteries through investment aid of € 200 million
- The beneficiaries of the aid will be selected after participating in a tender procedure - The first tender is scheduled to take place by the end of 2022

Main Interventions:

- Reform of the licensing procedure for the installation and operation of stand alone electricity storage stations
- Completion of the legislative framework by introducing provisions for the licensing process and the support scheme of RES stations combined with electricity storage devices
- Introduction of provisions regarding the location of electricity storage stations

Targets:

- Rational organization of the legislative framework
- Acceleration of projects' implementation

What is improving:

- Provision for granting aid depending on the form of the RES station
- Clarification of location and environmental licensing issues that raised questions for investors and delays in licensing procedures
- Compliance with EU legislation

Thank you for the attention!

Lindos, on the
island of Rhodes,
Greece.