

IRENA National Energy Transition Planning Dashboard

Presenters:

Juan Jose Gracia, Angela Mutsotso | IRENA

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SPEAKERS



Juan Jose Gracia
IRENA



Angela Mutsotso
IRENA



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Capacity
building

Peer-to-peer
learning

Tools and
methodologies

- LTES Network.
- Governance in planning.
- Topics for clean energy transition.
- **Global repository of energy planning information**



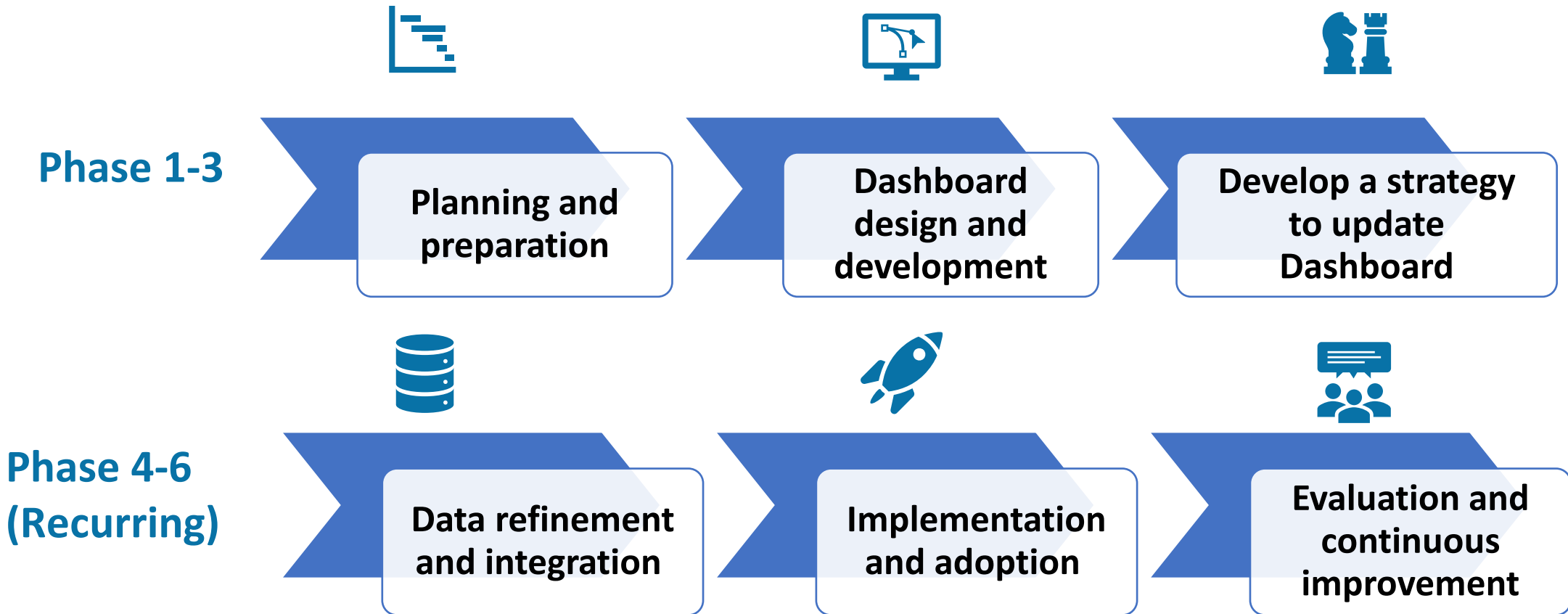
Collate and share energy planning information developed and used by governmental institutions for official energy transition planning purposes in an up-to-date **global repository of energy planning information**

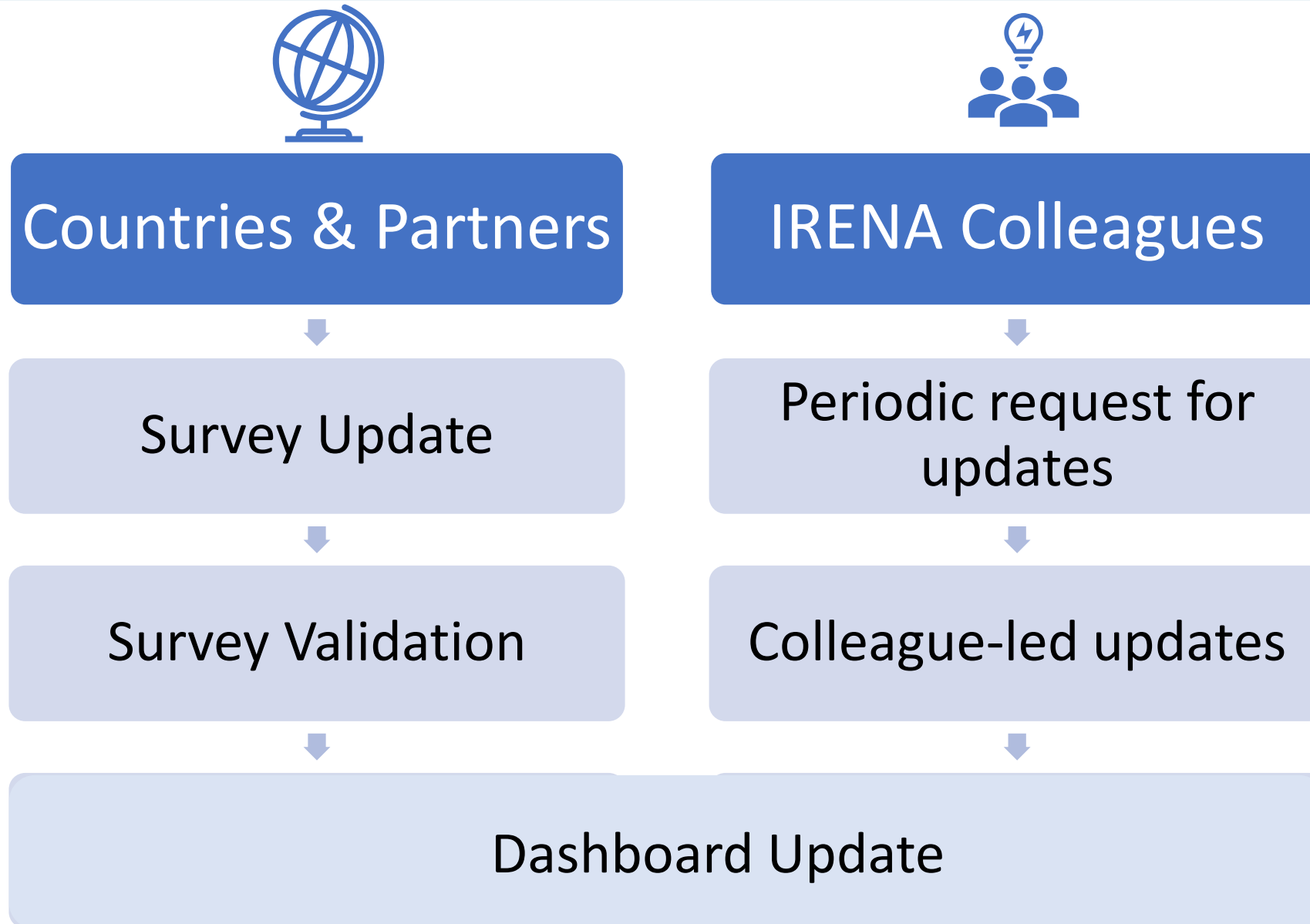


Support government energy planners in **benchmarking national planning practices** and learn about relevant **approaches used by global peers**, thereby ensuring peer-to-peer energy planning knowledge sharing



Foster **knowledge-sharing, collaboration, and peer-to-peer learning** among LTES Network Members, IRENA stakeholders, and other IRENA member countries





Initial Dashboard

Initial Version of LTES Dashboard

ENERGY PLANNING DOCUMENTS AND MODELLING TOOLS

This dashboard shows modelling tools used by governmental and technical institutions in developing their planning documents.

Filter by country

All 

Filter by region

All 

DATA COLLECTED

53














Countries

73

Documents

Search by modelling tool

Search  

Country	Planning document	Responsible institution	Planning horizon	Year of publication	Planning document scope	Modelling tools used	Modelling scope			Verified by country
							Energy system	Power capacity expansion	Demand assessment	
Argentina	Energy Scenarios Argentina 2040: Commonalities and divergences about the future of energy in Argentina	Ministry of Finance	2040	2018	Energy system	LEAP, Excel				
Argentina	Escenarios Energéticos 2030	Ministro de Hacienda	2018-2030	2019	Energy system	MESSAGE, TIMES				
Australia	2022 Integrated System Plan	Australian Energy Market Operator (AEMO)	2050	2022	Energy system	Capacity outlook model + time sequential model + engineering assessment tests + gas supply model + cost benefit analysis				
Belgium	Scenarios for a climate neutral Belgium by 2050	Federal Public Service	2050	2021	Energy system	2050 Pathways Explorer				

2024 Updated Version

Overview of Energy Planning Documents



Reset Filters

Data Overview

73

Countries

111

Documents

04 / 2024

Latest Dashboard Update

Filters

Region

All 

Country

All 

Document Type

All 


National Energy Planning Dashboard

Global Overview of Energy Planning Documents

Welcome to the IRENA National Energy Planning Dashboard! This platform serves as a global repository for official energy planning documents and modeling tools developed and/or used by governmental institutions. It provides information for government planners, enabling them to benchmark their practices against those of their peers and learn about the activities of their counterparts.

Country	Planning Document	Publication Year	Publishing Institution	Planning horizon	Update frequency (Years)	Planning Document Sectoral Scope
Andorra	Long-Term Strategy on Energy and Climate Change	2021	Oficina de l'Energia i del Canvi Climàtic/Agency of Energy and Climate Change, Ministry of the Environment, Agriculture and Sustainability	2020-2050	6	Energy, Electricity & Additional sectors
Argentina	Energy Scenarios Argentina 2040: Commonalities and divergences about the future of energy in Argentina	2018	Ministry of Finance	2030-2040	need basis	Energy & Electricity
Argentina	Escenarios Energéticos 2030	2019	Ministro de Hacienda	2018-2030		Energy & Electricity
Australia	2022 Integrated System Plan	2022	Australian Energy Market Operator (AEMO)	2022-2050	2	Energy & Electricity
Australia	Australia's Long Term Emissions Reduction Plan	2021	Department of Industry, Science, Energy and Resources	2020-2050	5	Energy, Electricity & Additional sectors
Austria	Long-term strategy 2050 - Austria	2019	Federal Ministry for Climate Protection	2020-2050	5	Energy & Additional sectors
Belgium	Scenarios for a climate neutral Belgium by 2050	2021	Federal Public Service Health, Food Chain Safety and the Environment	2020-2050		Energy
Benin	Plan directeur de développement du sous-secteur d l'électricité horizon 2045	2022	Ministère de l'Energie	2020-2045		Electricity & Additional sectors
Bolivia	Plan Eléctrico del Estado Plurinacional de Bolivia 2025	2014	Ministerio de Hidrocarburos y Energia	2013-2025		Electricity
Bosnia and Herzegovina	Integrated Energy and Climate Plan of Bosnia and Herzegovina up to	2022	To be adopted by the Council of Ministers of Bosnia and Herzegovina by	2022-2030	10	Energy & Electricity

Overview of Energy Planning Modelling Tools


Reset Filters

Data Overview

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Countries

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Documents

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Modelling Tools Selected

Filters

Modelling Tools Select

All

Region

All

Country

All

Document Type

All

National Energy Planning Dashboard

Global Overview of Energy Planning Modelling Tools

Welcome to the IRENA National Energy Planning Dashboard! This platform serves as a global repository for official energy planning documents and modeling tools developed and/or used by governmental institutions. It provides information for government planners, enabling them to benchmark their practices against those of their peers and learn about the activities of their counterparts.

NB: In the column "Validated by Country" a green tick is included for documents and data reviewed by government officials contacted by IRENA. Please note that this dashboard only contains official government documents

Country	Planning Document	Validated by Country	Modelling tools <i>Modelling tools key</i>	Modelling Scope		
				Energy system	Demand assessment	Power Capacity Expansion
Andorra	Long-Term Strategy on Energy and Climate Change					
Argentina	Energy Scenarios Argentina 2040: Commonalities and divergences about the future of energy in Argentina		LEAP, In-house models			
Argentina	Escenarios Energéticos 2030		MESSAGE, TIMES			
Australia	2022 Integrated System Plan		In-house models (Capacity outlook model; Time-sequential model; Engineering Assessment & Gas supply model)			
Australia	Australia's Long Term Emissions Reduction Plan		In-house models (DISER economic modelling)			
Austria	Long-term strategy 2050 - Austria		NEMO model, TIMES-based model, Climate pathways calculator for Austria			
Belgium	Scenarios for a climate neutral Belgium by 2050		2050 pathways explorer			
Benin	Plan directeur de développement du sous-secteur d l'électricité horizon 2045		GEOSIM, GAP, DAP			
Benin	Plan Directeur de Développement du Sous-secteur de l'Energie Electrique au Benin		WASP, NAP, GEOSIM			
Bolivia	Plan Eléctrico del Estado Plurinacional de Bolivia 2025		OptGen, SDDP			
Bosnia and	Integrated Energy and Climate Plan of Bosnia and		LEAP			

Modelling Tool Key



[Back to Modelling Documents Page](#)

National Energy Planning Dashboard Modelling Tool Key

This is a brief description National Energy Planning Tools featured in the Energy Planning Dashboard

Select Modelling Tool

All

Modelling Tool	Comments
Balmorel	Balmorel is a partial equilibrium model for analysing the electricity and combined heat and power sectors in an international perspective.
EnerMED	EnerMED is a bottom-up demand forecasting model enabling users to assess the impact of energy efficiency policies at country-level, and to drill-down to branches and end-uses.
GCAM	GCAM is a dynamic-recursive model with technology-rich representations of the economy, energy sector, land use and water linked to a climate model that can be used to explore climate change mitigation policies including carbon taxes, carbon trading, regulations and accelerated deployment of energy technology.
VEDA	Interface to work with TIMES model. VEDA2.0 is a powerful yet user friendly set of tools geared to facilitate the creation, maintenance, browsing, and modification of the large data bases required by complex mathematical and economic models.
LEAP	LEAP (Low Emissions Analysis Platform) is a widely-used software tool for energy policy analysis and climate change mitigation assessment developed at the Stockholm Environment Institute.
MACC	Marginal Abatement Cost Curves (MACCs) are a useful tool for assessing the cost and abatement potential of various mitigation options and for prioritizing which of a list of potential measures might be most actively pursued.
MARKAL	MARKAL is a generic model tailored by the input data to represent the evolution over a period of usually 40 to 50 years of a specific energy system at the national, regional, state or province, or community level.
MESSAGE	MESSAGE (Model for Energy Supply Strategy Alternatives and their General Environmental Impact) has been developed by the International Institute for Applied Systems Analysis (IIASA) in Austria since the 1980s
MAED	Model for Analysis of Energy Demand (MAED) evaluates future energy demands based on medium- to long-term scenarios of socioeconomic, technological and demographic development.
NEMO	NEMO is a high performance, open-source energy system optimization modeling tool developed in Julia (https://julialang.org/).
OptGen	OptGen is a long-term expansion planning model that determines the least-cost sizing and timing decisions for



Q & A
10 min

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