



INTERRFACE



INTERFACE

OCTANE

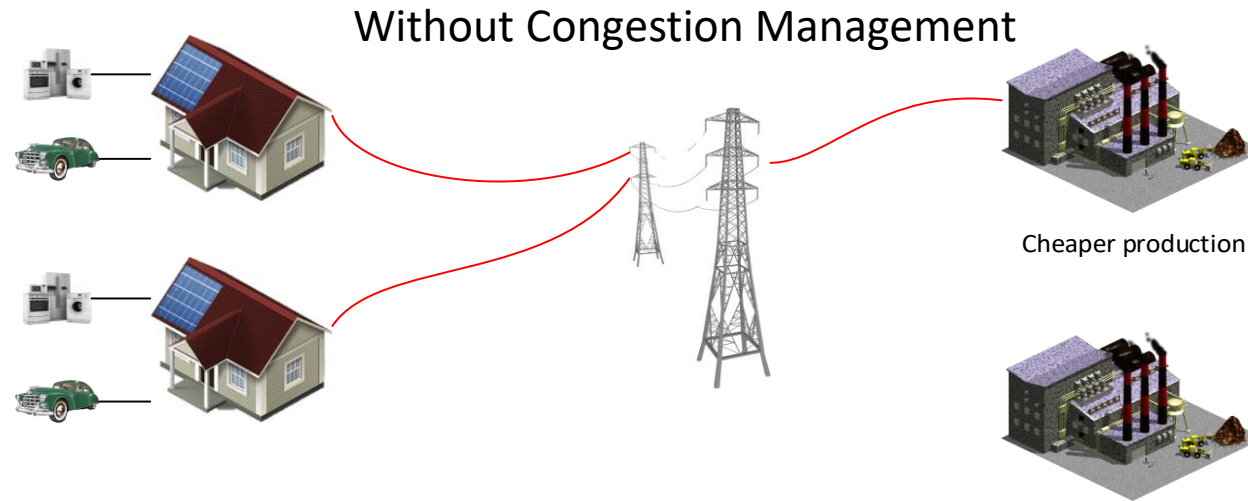
A methodology for the determination Of CongesTion mAnagement requiremeNts at both
TSO and DSO lEvels

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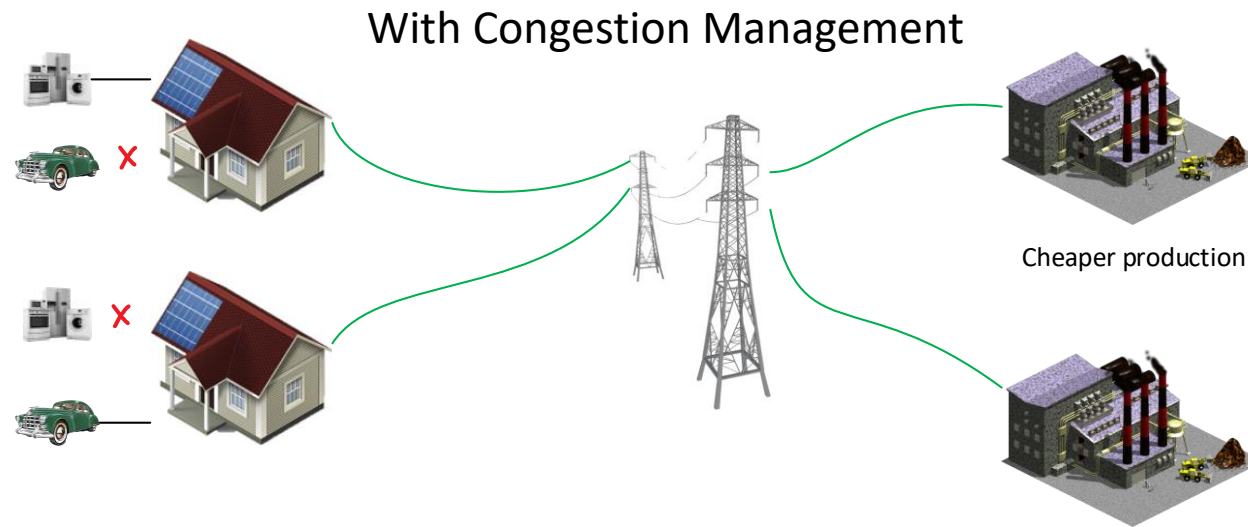
Outline

- 1 Congestion Management
- 2 Short description
- 3 Congestion Management methodology
- 4 Objectives
- 5 Ambition/innovation
- 6 Work plan

Congestion Management (example)

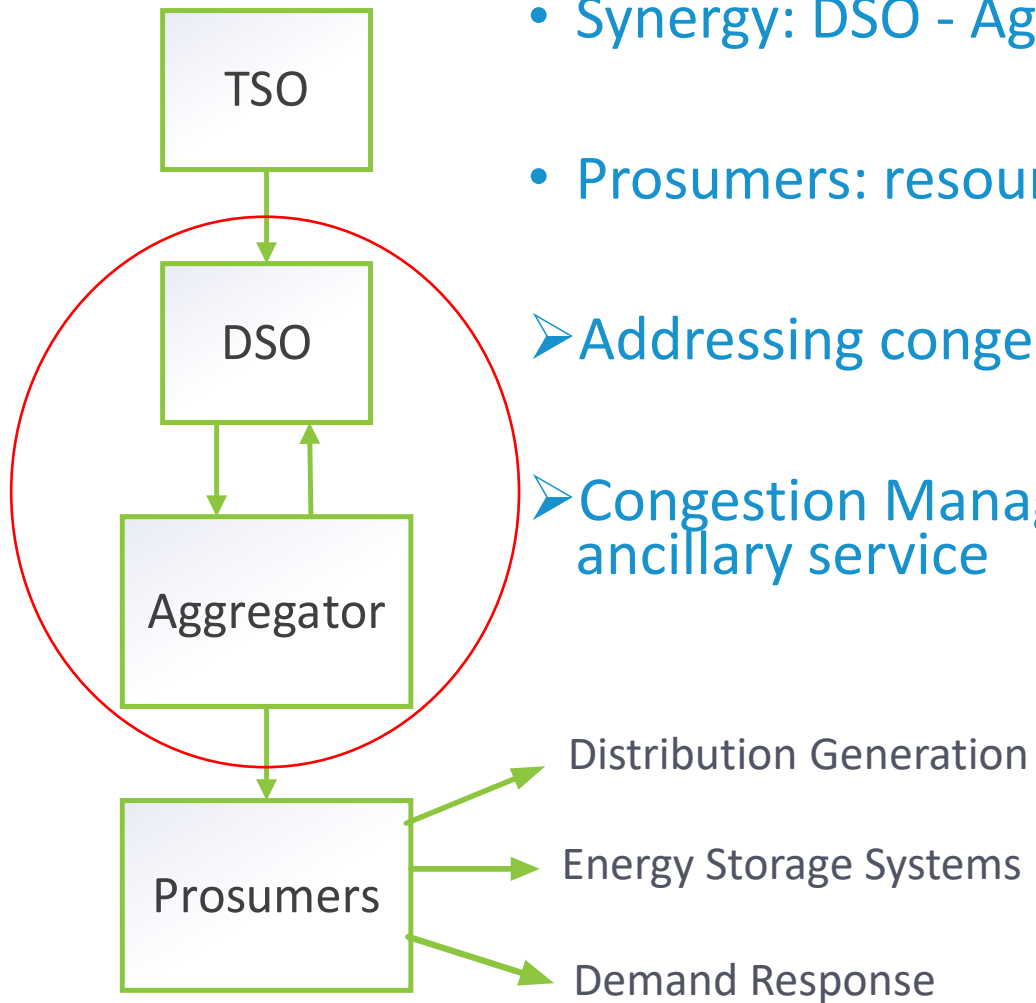


Congestion due to high infeed from generation and high load demand



Congestion relief using other generation and demand response

Short Description

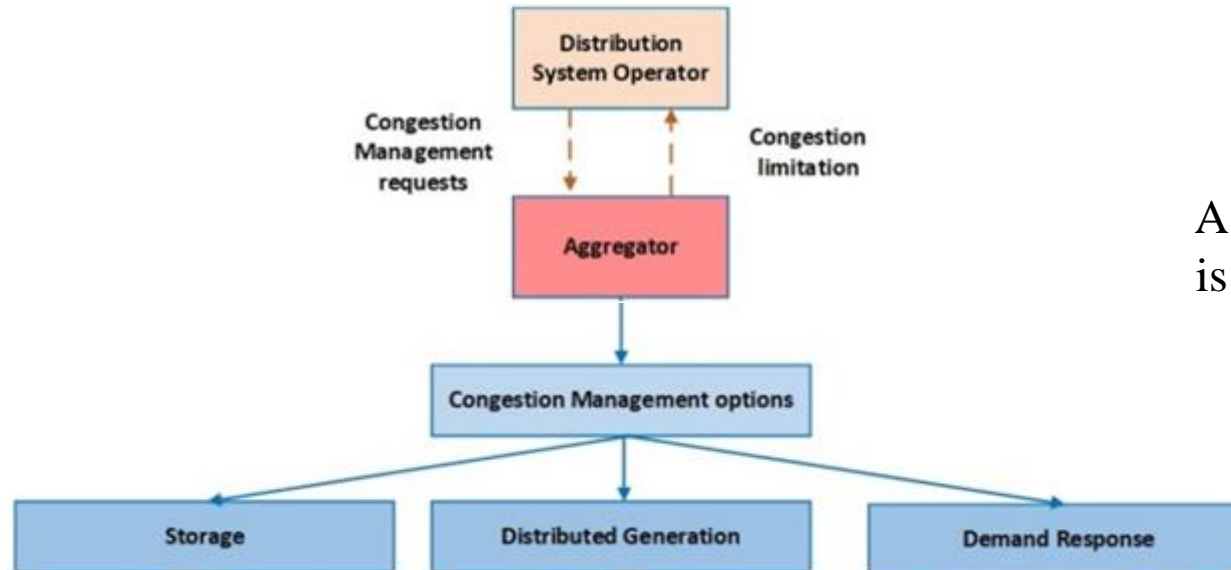


- Synergy: DSO - Aggregator
- Prosumers: resources of flexibility
- Addressing congestion
- Congestion Management (CM) as ancillary service

SCOPE:

- Development of an innovative methodology to address congestion in transmission and distribution networks by utilizing the flexibility of the resources owned by an Aggregator

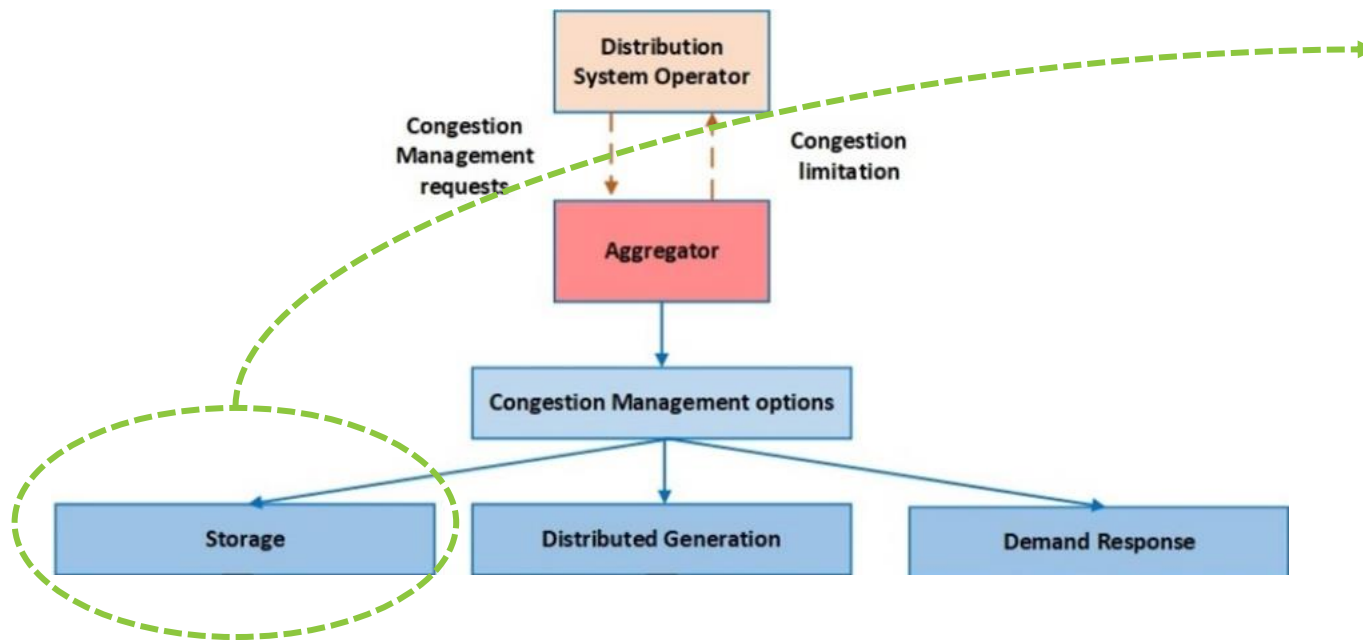
Congestion Management methodology



A Congestion Management (CM) event is triggered by the DSO and send to the Aggregator

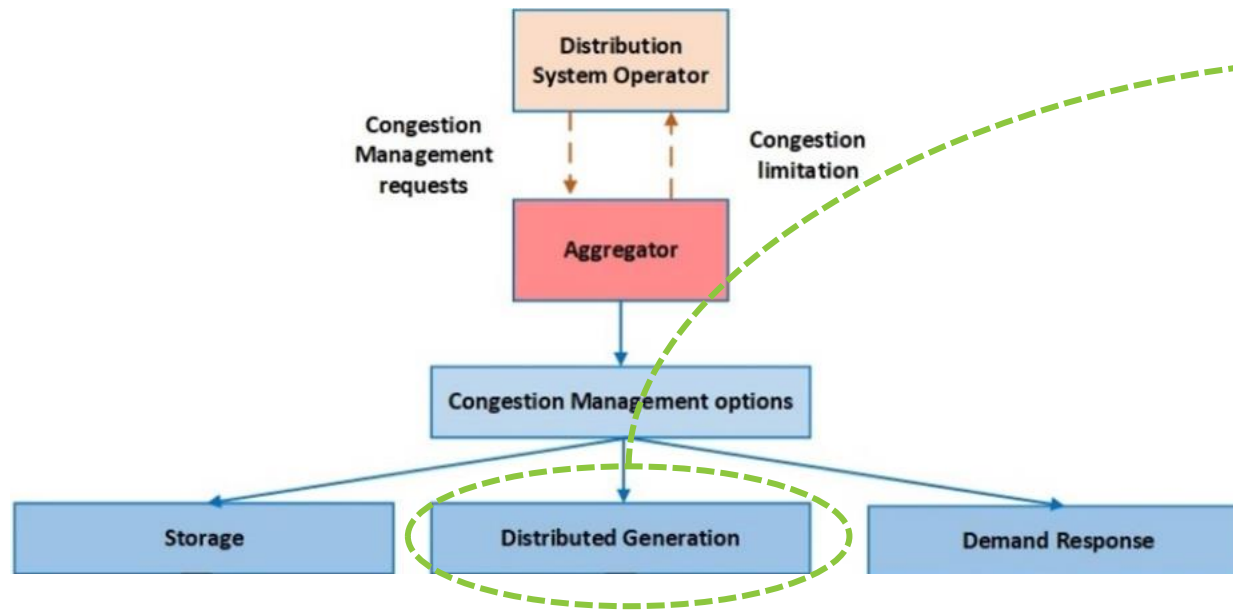
Aggregator considers the available assets to respond to the request

Congestion Management methodology



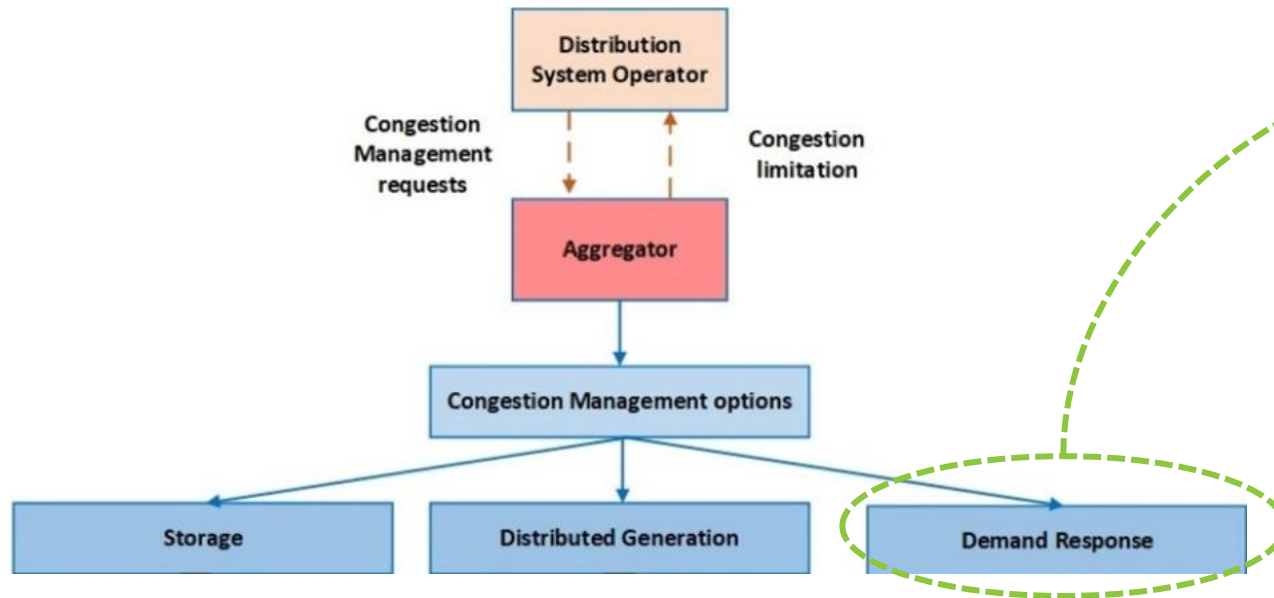
- Type of Storage
- Storage Capacity
- Storage location

Congestion Management methodology



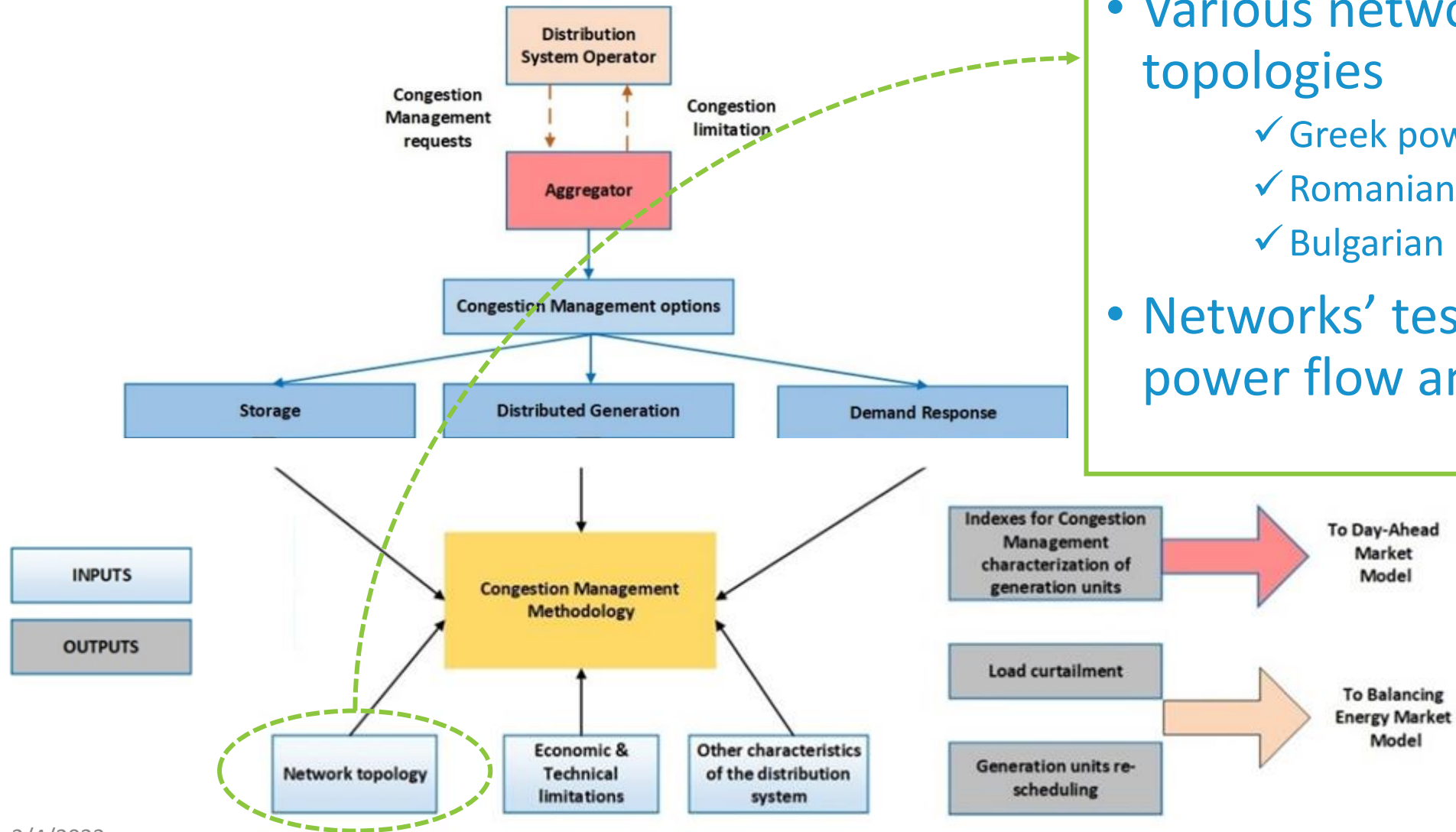
- DG generation forecasts
- DG Capacity
- DG location

Congestion Management methodology



- Price/demand function
- Elasticity of demand
- Demand forecasting
- Type of DR measure:
 - ✓ Time-of-Use Rates
 - ✓ Critical Peak Pricing
 - ✓ Real Time Pricing

Congestion Management methodology



- Various network topologies

- ✓ Greek power systems
- ✓ Romanian power systems
- ✓ Bulgarian power systems

- Networks' tests using power flow analysis

Objectives of OCTANE

- Development of a holistic methodology for the Incorporation of CM in the ancillary markets
- CM to be offered by DERs, ESSs, and DR programs
- Development of prosumer engagement mechanisms to participate in DR programs
- Inclusion of both technical and economic features by the Aggregator

Ambition/innovation

- CM is not included in the power market as an energy service
- Combined DERs, ESSs, and DR to formulate a mixed resource of flexibility
- Consider the transmission and distribution grids configurations

Exploitation plan of project results

- Enhanced visibility of outputs using various streams
- Outreach to relevant stakeholders
- Scientific publications

Work plan

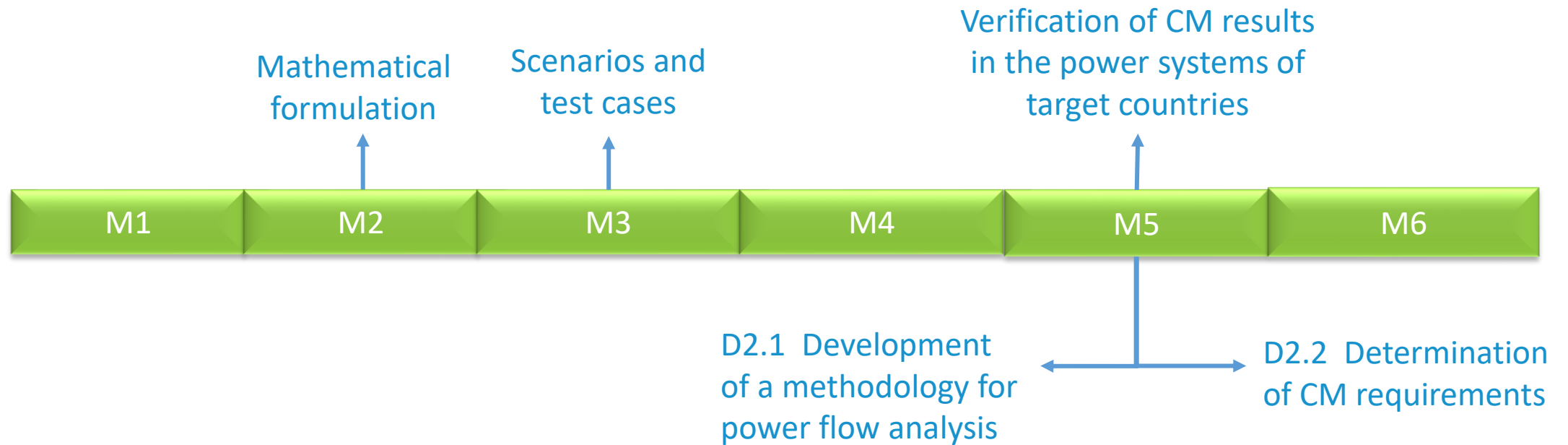
- Task 1: Project management
- Task 2: Design, modelling and analysis
- Task 3: Evaluation of the Project`s impact in the distribution grid
- Task 4: Dissemination and exploitation of the results

Task 1: Project management

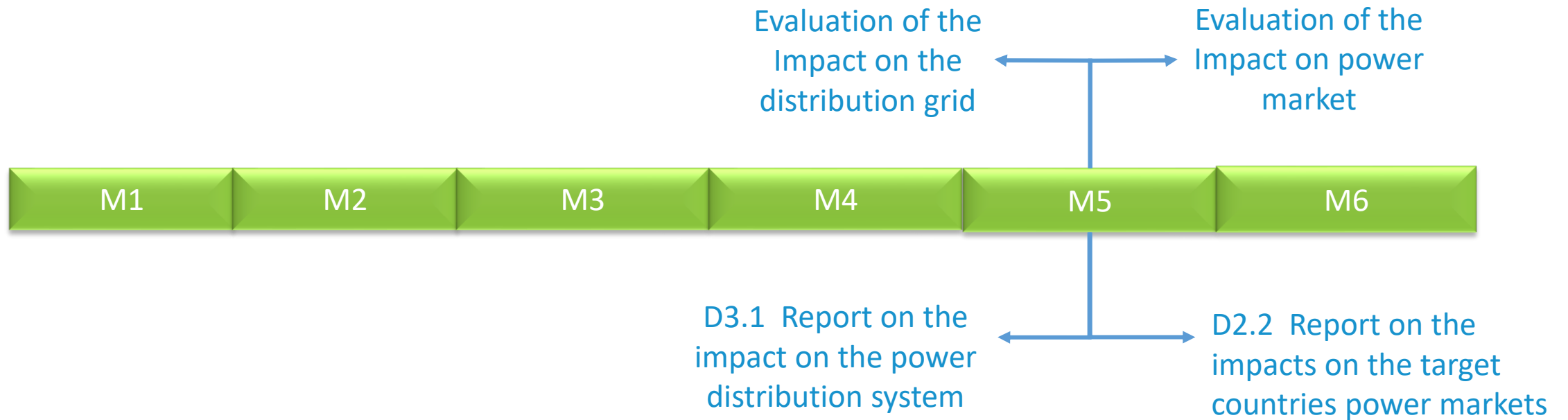
Exploitation plan



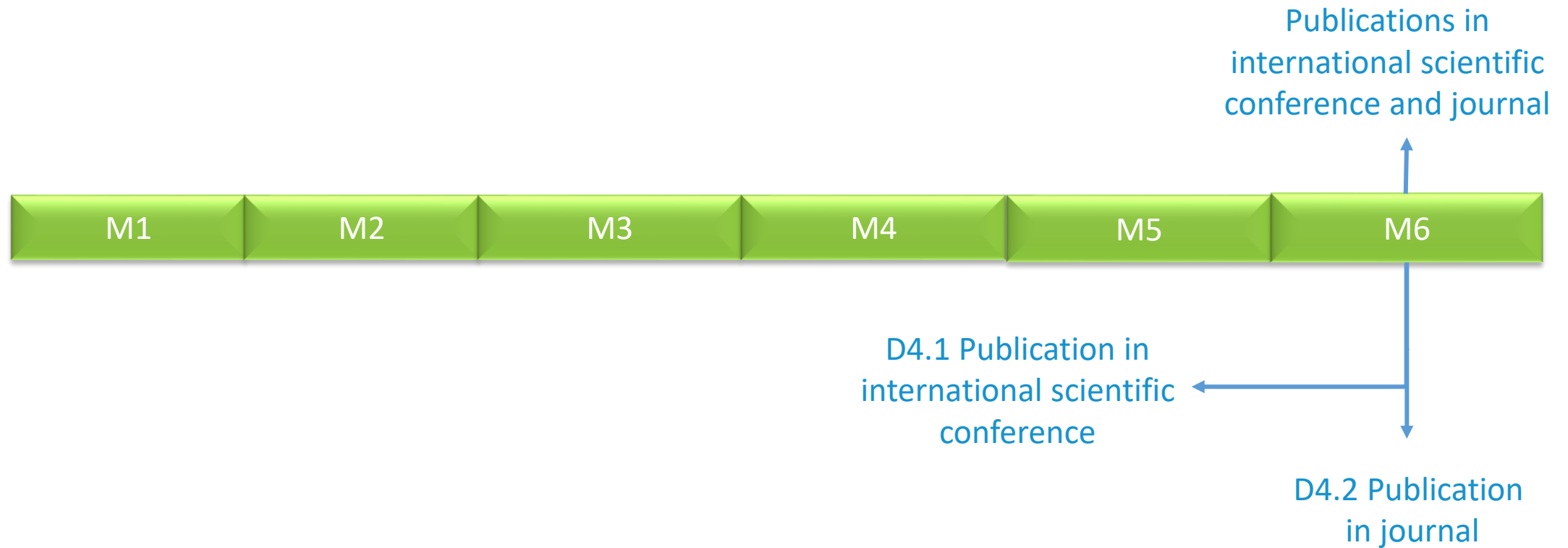
Task 2: Design, modelling and analysis



Task 3: Evaluation of the Project's impact in the distribution grid



Task 4: Dissemination and exploitation of the results





INTERFACE

Thank you for your attention

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