# TASK 7 OUTLOOK POLICY OPTIONS

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## Goal of Task 7

- Identification of relevant regulatory elements:
  - Demand-side flexibility
  - Interoperability
  - Minimum energy efficiency
- Identification of policy approaches:
  - Legislation or voluntary agreements, labelling, promotion
  - Horizontal/vertical
- Selection of Ecodesign and/or Labelling policy options
- Scenario analysis of impacts of policy options on energy system, end-user and industry (= re-runs model Task 5/6 & qualitative analysis)

## Policy Objectives – what do we want?

- Appliances in scope (of the regulation) should be **required to become DSF capable/interoperable**
  - In a specific way, defined in the regulation
  - As a general mandatory principle which industry needs to fill in via standardisation
- Appliances that are **marketed** as DSF capable/interoperable should fulfill certain requirements
- Appliances (marketed or not marketed as DSF capable/interoperable) should be required to provide **information** on any DSF features
- Appliances that are DSF capable/interoperable in the sense of the regulation should be **recognisable** as such e.g. via the energy label
- Appliances that are DSF capable/interoperable in the sense of the regulation should benefit from a **better energy efficiency class** on the energy label
- Appliances that are marketed as DSF capable/interoperable and/or benefit from recognition/national funding should follow a **defined test standard**

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## Potential Ecodesign requirements

- Specific requirements for appliances in scope to become DSF capable/ interoperable
- Essential requirements to become DSF capable/ interoperable
- Specific/essential requirements for appliances marketed as DSF capable/interoperable
- Specific requirements for maximum energy consumption of smart features of appliances
- Information requirements

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## Specific requirements for appliances to become DSF capable/interoperable

- Requirements for (so far non-DSF capable) appliances to become DSF capable and/or interoperable
- Likely linked to it: selection of interoperability standard that has to be implemented
- Impacts:
  - Non-DSF capable/non-interoperable appliances are banned from the market
  - DSF/interoperability feature is not subject to competition between manufacturers
  - Lower manufacturing costs and purchasing price because of economies of scale compared to non-legislative approach
  - End-consumer is required to purchase the additional functionality (pay higher price) even though he might not make use of it

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## Vis-à vis Essential requirements

- Essential requirement sets "higher - but mandatory - principle" e.g. "DSF capable appliances must be interoperable“
- Industry needs to substantiate the requirement through standardisation by a given date
- Impacts:
  - Only appliances meeting the DSF/interoperability standard will be allowed on the market (but non-smart appliances will not be banned from the market)
  - Lower manufacturing costs and purchasing price because of economies of scale compared to non-legislative approach
  - End-consumer has a choice between smart/non-smart

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## Specific DSF functional requirements for appliances

- Definition of essential DSF functionalities, supported by a harmonised test standard
- Possibly including specification of minimum capabilities
- Depending on the level of detail, this approach requires product-specific requirements (in existing or new vertical implementing measures)

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## 'Settlement support' functionality

- Functionality to check contractual DSF obligations of end-user
- Which form: Energy reporting requirement? Mandatory standard for measurement? Leave it to the market?
- How: part of smart meter or in appliance?

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## Specific requirements for appliances marketed as "interoperable"

- Ensure level playing field enabling consumers to choose other brands

- General principle: strive to as little standards as possible, which as much as possible support the same data model
- Definition of essential elements providing interoperability across smart home devices/brands, supported by measurement standard
- Possibly linked to a common data model
- Possibly linked to common communication standard (transport layer)
- Horizontal approach
- Interoperability gap cloud architecture: recommendation that extended resource discovery is universal and integrated in standards

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## Energy Labelling: Measures to disclose and promote DSF capability/ interoperability

- Goals: How to increase visibility? How to support/reward DSF capability/interoperability without lock-in?
- Incentivise via an EU harmonised logo/label
- Name protection: only use DSF capable/smart grid ready/interoperable if it has the label
- Possibility to link with financial bonus (national schemes)

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## Energy Label visualising DSF capability

- Various forms of positive rewarding are possible:
  - Visualise DSF functionality on the energy label by means of icon: horizontal for all appliances or vertical, incl/excl frequency control
  - Attribute higher class in energy label? Upgrading measures e.g. by awarding a better energy efficiency class?
- Impacts:
  - Give visibility to DSF capable appliances
  - Help consumers make an informed purchasing decision
  - Incentivise manufacturers to develop/offer DSF capable appliances
  - However, financial reward for consumer investment into DSF functionalities will depend on use of it and availability of remuneration schemes

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## Energy Labelling visualising interoperability

- Possibly, icon on the energy label
- Different levels are possible:
  - Data model
  - Full interoperability (including communication standard) -> plug and play to reward interoperability if there are also proprietary solutions

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## Voluntary agreements

- Self-regulation by manufacturers or users
- In line with the Ecodesign Directive
- Option for types of product with small environmental impact?
- Risk for sectors with fragmented manufacturing structure:
  - Difficulties to gather sufficient support among market operators –> higher transaction costs
  - Potential competitive advantage for free-riders and/or non- participants

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## Conclusion

- The more ambitious the (combination of) options:
  - The higher the economic value for the energy system
  - The lower the economic value/kWh
  - The higher the costs for end-consumer/industry

  -> Reasonable optimum to be found
- Selected (combinations of) policy options influence parameters in model:
  - Number of smart appliances taken up by the market
  - Flexibility profile
  - Manufacturing/purchasing cost of appliances
  - Efficiency of smart appliances: lower energy demand combined with lower level of available flexibility
- Re-runs of the model will be done to identify boundaries

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## Your input is welcomed

- Now – speak up ☺
- Written recommendations on Task 7 welcomed by end of June
- Written comments on Task 5 & 6 welcomed by 24 June (format for comments)

# Thank you!

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