

# Report brief

## Distributed Energy Resources (ENE705)

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# Report (70%)

A report (max 2000 words) detailing a critical assessment of DSM/DER in practice that will be assessed through the following marking scheme:

- An overview of the facility and its DSM/DER activities (10%)
- Description of the energy supply/market structures that facilitate DSM/DER (20%)
- Why is DSM/DER utilised? (purpose) (20%)
- What in your opinion, what could alternative approaches achieve? (30%)
- What are your conclusions? (10%)
- Reference, structure & style : At least 10 references from Peer-Reviewed Journals and reputable international sources (Harvard style) supporting your arguments. (10%).

Feedback: This will be in a written format addressing each of the points above and will be provided within University timescales for feedback.

# Marking criteria

Assessment Criteria	Performance (%)					Marks available	Marks awarded
	Excellent (70 to 100)	Good (60 to 69)	Satisfactory (50 to 59)	Sufficient (40 to 49)	Unsatisfactory (0 to 39)		
Overview of the facilities and its DSM/DER activities						10	
Description of national energy supply/market structure that facilitate DSM/DER						20	
Purpose of DSM/DER						20	
What is your opinion, what could alternative approach achieve?						30	
Conclusion						10	
Reference, Grammar, Spelling and Structure						10	
Total						100	

# Marking criteria

Criteria	0-39%	40-49%	50-59%	60-69%	70-100%
<b>Overview of the facilities and its DSM/DER activities (10%)</b>	No overview of a country and/or specific information related to DSM/DER	Basic overview of a country and limited information of DSM/DSE activity	Satisfactory overview and DSM/DER information but lacks some of key details	Good overview along with key details of DSM/DER activities which provides key details	Excellent overview and key information of DSM/DER activities along with global perspective and comparison
<b>Description of national energy supply/market structure that facilitate DSM/DER (20%)</b>	Poor or no information of national usage/supply/market of energy (gas and electricity) market, structure that facilitates DSM/DER	Basic information of national usage/supply/market of energy (gas or electricity) market	Satisfactory information of national usage/supply/market of energy (gas and electricity) market	Good information of national usage/supply/market of energy (gas and electricity) market along with some details on facilitation	Excellent information of national usage/supply/market of energy (gas and electricity) market along with good details to support DSM/DER and critical evaluation
<b>Purpose of DSM/DER (20%)</b>	Poor or no information of on purpose of DSM/DER	Basic information of on purpose of DSM/DER and lacks key details	Satisfactory information on purpose of DSM/DER that includes most points	Good information on purpose of DSM/DER with excellent details and relevance to specific country	Excellent information on country specific purpose of DSM/DER and critical evaluation on current, future benefits and requirements.
<b>What is your opinion, what could alternative approach achieve? (30%)</b>	Poor or limited information on alternative approach for a selected country	Provides basic details and opinion but not supported by literature	Satisfactory details and information on alternative approach but lacks critical understanding and evaluation	Good details, well thought and critically evaluated approaches along with potential and barriers	Excellent alternative approach that critically evaluates multidimensional approach along with challenges, potential., barriers and solutions.
<b>Conclusion (10%)</b>	Poor or missing conclusion section	Basic conclusion section that fails to reflect outcome	Satisfactory conclusion that reflects some of the work/information presented	Good conclusion that reflects overall outcome of work carried out	Excellent conclusion section that provides overview, critical evaluation, solution, outlook and compares with literature
<b>Reference, Grammar, Spelling and Structure (10%)</b>	Poor structure, grammar, spelling and/or no references	Basic structure and limited references	satisfactory structure missing few sections, layout and reference are limited	Good structure and but limited references from journal (<10)	Excellent structure, grammar, spelling and min 10 references from journal paper along with other resources (as per Harvard)

# Report format

- Structure of report : Think as a technical report / dissertation report
- Title page
- Table of content / figures/ tables
- Chapter/ topic heading/nos and sub heading/nos
- Start with introduction section and end with conclusion section:  
chapter/section/topics in between as appropriate
- Cross referencing of table/figure
- References as per Harvard referencing style
- You can have appendix section to include further information
- **2000 words :does not include, title page, list/tables, references, appendix section**



# Content of report (1)

- **Overview of the facilities and its DSM/DER activities:**
  - ✓ Country specific: area / population, density etc
  - ✓ energy demand, sector wise energy consumption, emission etc
  - ✓ Provide info on overall activities/installation/capacity of centralised and distributed energy resources
- **Description of national energy supply/market structure that facilitate DSM/DER**
  - ✓ Energy supply market (all form of energy) (see UK diagram for example in week1 lecture notes)
  - ✓ What is the market structure to meet energy demand and supply: e.g. electricity/gas market structure
  - ✓ What are the policy, regulations, drivers that support DERS and hence DSM
  - ✓ Any long term policy/goal or commitment in direction to support DSM/DER at different scale (Domestic, commercial, industrial, transport and power generation)

# Content of report (2)

- **Purpose of DSM/DER:**
  - ✓ Country specific
  - ✓ What is purpose and benefits of DER or DSM after looking at energy market/supply ,policy etc
  - ✓ What could it achieve as per current policy/regulation/market structure?
- **What is your opinion, what could alternative approach achieve?**
  - ✓ Look at DER installation, policy, structure and market mechanisms that works and supports DSM.
  - ✓ Understand and compare international best practice in DER/DSM area
  - ✓ Critically reflect on above two points and give your opinion on alternative approach for DER/DSM activities, installation, market structure, policy, business model etc
  - ✓ Explain what alternative approach you would propose, how it would work? What changes are required and long-term benefits and barriers to it.

# Content of report (3)

- **Conclusion & outlook:**
  - ✓ Reflect on what you presented
  - ✓ What is existing energy demand/supply, structure/market/policy for DER/DSM
  - ✓ What is purpose and benefits of DER or DSM in existing structure
  - ✓ What should be alternative approach
  - ✓ Benefits, barriers and changes for alternative approach for specific country
  - ✓ Outlook of your study going forward (what would you do further)

**At least 10 references from Peer-Reviewed Journals and reputable international sources (Harvard style) supporting your arguments. : use student login to get full articles from Scopus , science direct**



# Task plans : aligned to Report

By week (based on 12-week teaching plan)

- ✓ Week 2: Gather general information, data, literature available to select a country
- ✓ Week 3: Select a country for final report (70% of module mark): Email me name of the country for the report along with B no, full name on : [n.shah@ulster.ac.uk](mailto:n.shah@ulster.ac.uk) )
- ✓ Week 5: Draft: Prepare overview on facilities and DSM/DER activities for a selected country
- ✓ Week 7: Description of national energy supply/markett structure and supporting details related to DSM/DER
- ✓ Week 9: Purpose of DSM/DER related to country (specific)
- ✓ Week 11: Details on alternative approach, solutions, reference country, lesson to be learned, adaptation at various level etc.
- ✓ Week 12: Conclusion, reference, overall structure tidy up and report submission.
  
- ✓ **Please make sure to check your similarity index, plagiarism (cheating), use of AI policy on University website via student portal.**



# Thank you