



Demand Response

Demand response involves providing incentives to shift or shed electricity demand in wholesale and ancillary power markets to help balance the grid.

This flexibility will become increasingly important as grids become progressively affected by increasing electrification and the inclusion of variable power generation such as solar PV and battery storage.

Demand Response – and flexibility in general - is in its early stages in many jurisdictions but is likely to develop based on two main mechanisms. Price-based programs (or implicit demand response), use price signals and tariffs to incentivise consumers to shift consumption. Whilst incentive-based programs (or explicit demand response), make direct payments to consumers who shift use as part of a demand-side response program.

Nexbe provides a range of response-ready devices, supported by a sophisticated software cloud layer, that connects the demand response originator with the end-appliances. Our protocol support includes:

- openADR 2.0b (IEC62746-10-1)
- IEEE2030.5
- EcoPort (ANSI CAT-2045)
- AS/NZ4755.1
- BSI PAS1878/9

Nexbe's expertise in load control offers local direct on/off control and modulated load/export responses, both supported by real-time energy data as required.

Nexbe has a growing range of 'Demand Response Ready' equipment for trials and deployment worldwide, including:

Polyphase metering products

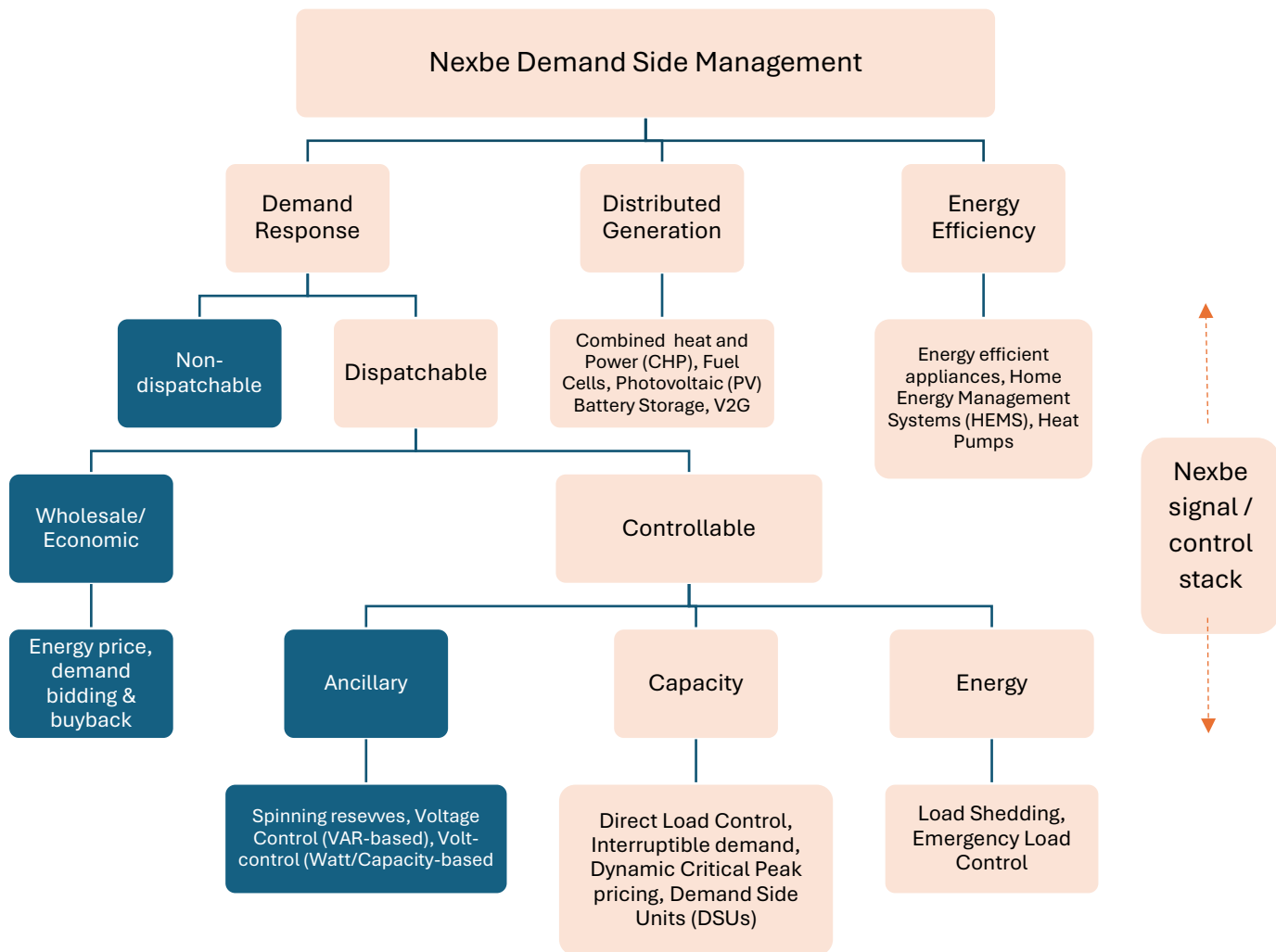


DIN-rail mounted controls and CT sensors



Behind the Meter Physical layer Appliance Interfaces for Demand Response Enabled devices (DRED)





OpenADR 2.0b

Nexbe's complete VTN/VEN solution can provide valuable support to market simulation and the understanding of customer value propositions for both network operators and retailers/utilities.

Standardised program templates exist for In Advance (days), Dynamic (hours) and Emergency (now) situations, along with price responsive bids, dynamic operating envelopes (DOE) and connected DER (battery level).

Uniquely, Nexbe's solution also provides instantaneous metrology support for kW/KWh reporting at event interval.

Signalling protocols can assist with Automated Flexibility Supply, quantifying Energy Shifting, discovery of customer load patterns, interoperability between flexibility suppliers, demand-response enabled devices (DRED) and VTN-commercialised models.

Behind-the-Meter Physical layer Interface

In addition to Nexbe's cloud/API integration for routing of signalling messages, Nexbe has introduced a physical layer gateway box for direct load control through RJ45/DRM messaging.

This allows direct control over legacy appliances such as hot water cylinders, heat pumps, pool pumps and battery storage.

Further Information:

Please contact us to discuss your demand response requirements:

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