



Integrated Transport Programme

NULEAF Steering Group, 8/12/21

Integrated Transport Programme (ITP)

- An NDA Group wide programme sponsored by NDA Strategy (Phil Edge, Head of Transport & Logistics)
- Nuclear Transport Solutions (NTS) have been tasked to lead this programme as the NDA's transport experts
- NTS formed in 2021 by combining Direct Rail Services and International Nuclear Services

ITP Vision

A coordinated transport system that delivers safe, secure, compliant, sustainable, resilient, timely and cost-effective transport across the NDA group and beyond while meeting the requirements of both the NDA mission and external customers.

ITP Benefits

- Reduced lifetime cost of transport (transport containers and transport operations) for the NDA group, delivering increased value for money for the taxpayer.
- Sustainable transport systems, giving a reduction in CO₂ emissions and societal benefits (eg less local congestion or improved infrastructure), improving stakeholder confidence and trust.
- Optimised control and increased buying power for the NDA group for transport containers and transport services. Linked closely to the IWMP and waste container procurement.
- Improved methods for scheduling transport asset and infrastructure investment and availability; and for integrating transport operations.
- Increased consistency in approaches across the group resulting in improved safety, security, quality and regulatory confidence.
- Sustainable capability to design, licence, oversee, coordinate, consign and deliver safe, secure and compliant nuclear transport, delivering strong organisational health.

Year 1 Priorities

- Acceptance of the Blueprint within NDA Group to establish the programme - Achieved
- Development of a demand model to understand current and future transport requirements
- Development and introduction of a Land Transport decision framework (planning tool considering make / buy and road vs rail decisions)
- Transport Package Strategy to ensure resilience of transport package supply to the group, including strong design authority capability

Land Transport Strategy

Objective – to produce a gate B strategy paper and a decision framework to assist group companies making decisions about transport to improve coordination and value for money

Draft document being consulted on which sets five objectives and poses 3 areas to address:

- To provide a simple framework which assists group businesses in making sound decisions about transport;
- Maintain standards in safety and security;
- Minimise disruption to business services, including providing flexibility and resilience;
- Minimise environmental and social impact;
- Improve overall value for money to the NDA group.

- Method

How is the decision framework to be implemented? Options range from local project decisions through to centralised implementation.

- Mode

Which mode or modes are most appropriate for the delivery of the transport?

- Delivery

How is the transport to be delivered? This is a group Make / Buy decision.

Mode – Primarily Road vs Rail Choice: Key Principles emerging from paper

We recognise rail offers some key benefits – Cost saving, CO2 reduction, Societal benefit (HGV reduction)

However there are some dis-benefits – requires long trains and distances, usually double handling

Road is preferable where :

- (Genuine) one-off or few-off requirements
- No opportunity to combine requirements or buffer store
- Short distances involved
- No local railhead at one or both ends

Rail is preferable where :

- Multiple packages need moved (>8-10 for lightweight)
- “Bulking up” requirements is possible
- Long distances involved
- Heavy packages
- Significant bulk or construction materials

Delivery – Value for Money

- Maintaining high standards in **Safety and Security**
- Maintaining **Reliability** of delivery
- Ensuring **Flexibility** to accommodate priority NDA group transport requirements; re-phasing in programmes; and new opportunities
- Improving **Environmental Sustainability** (low carbon is particularly valued given drive to net zero)
- Minimising **Societal Impacts** (reducing the number of transports through local communities)
- Securing **Cost Efficiency** (e.g. maximising use of available assets and/or combining services to generate cost savings)

Transport Package Strategy

Objective – to produce a gate A strategy paper to set out credible options for the long term management of packages to support the NDA mission in a more coordinated and resilient manner.

Draft document being consulted on which covers four separate strands:

- **Demand:** establish the current anticipated demand for transport containers, including timing of investment
- **Design Authority:** what is done currently and what are the credible options for the long term resilience of Design Authority and licensing for the estate (key and scarce skills)
- **Manufacturing:** What are the key manufacturing requirements, what is the current state of the supply chain and how can that be sustained
- **Fleet Management:** what are the credible options to manage transport containers (including maintenance) over the lifetime of the NDA mission

Emerging Issues - Infrastructure

Problem statement:

Railheads were designed to move a small number of spent fuel (Magnox or AGR) flasks at a time. They are therefore generally quite small.

Future requirements will be for efficient movement of large numbers of packages to the GDF.

Way forward:

Assess the current facilities against anticipated future demand.

What investment is required to meet waste transport to GDF needs?

What other benefits could arise from early investment? (eg movement of bulk decommissioning materials)

Identify any benefits beyond NDA Group.

Develop business cases for investment

ITP Year 2

- Land transport (following on from Year 1 Gate B paper / decision framework)
Desktop review, pilot decision framework, roll-out framework
- Package strategy (following on from year 1 Gate A paper)
Gate B preferred option paper (& commence implementing), Supply chain resilience review, DA oversight in place, DA appraisal of existing package capabilities
- Develop capability & skills strategy
- Evolve transport model & use to support decision making
- Data gathering for year 3 Road strategy development
- IP-4 engagement towards regulatory change
- Commence infrastructure review, requirements and investment (gate A)
- Develop proposals for emergency response improvements