## **Automotive Council Technology Group**

## Energy and Infrastructure Work-stream

## **Team members**

Name	Organisation
John Batterbee	ETI
Robin Haycock	Arup
Dave Buttery	Office for Low Emission Vehicles
Catherine Hutt	SMMT
Michael Stoecklin	BMW
Tim Disney	Nissan
David Ruffell	Tata
Steve Faulkner	Caterpillar
David Densley	SSE
Sebastien Ruiz	EdF
John Cooper	BP
Nigel Tate	Shell
Henri Winand	Intelligent Energy
HSBC	TBC?
David Martell	Charge Master
Jon Bentley	IBM
David Hytch	GMPTA

## Status

The working group has met fully once in the period between the last technology group meeting and now.

The first working group meeting debated the task as defined by the technology group, and concluded that our main tasks were:

- To develop a generic roadmap for any new fuelling vector to be introduced
- We agreed that we should produce a list of fuel vectors and rather than ranking these, we would add comments on why we considered each vector was important. Such factors could be legislation, timing, infrastructure implications, policy etc. With the list and comments, we would present this to the technology working group to ask for guidance and ranking

- That with the first fuel vector chosen by the technology group, we would test the process and develop a full working, time based, map to prove out process and highlight key issues
- Rework of the process map based on outcomes of testing the process with a fuel vector

At this meeting we developed a series of additional meeting dates and agendas that would enable the team to complete the tasks identified above. These meetings and agendas are outlined below, but it should be noted that due to the close date for the first meeting, we agreed to shift the whole series by one meeting, and we will need to add an additional date to the series.

# The first meeting developed our common approach by debating and working through:

## Agreed Drivers in order of importance for this group

Note 1 - there is a demand for mobility which we at least should maintain in this work stream

Note 2 - governments only regulate if the driver would not happen without them. Therefore if Economic development and mobility occurred naturally for these drivers the government would not need to act

Note 3 - focused on Auto Council aims

### **Economic prosperity**

- Competitiveness
- Profit
- CSR benefits result in bottom line profit
- Fashion
- Land Use

### **Climate Change**

- Regulation
- Overall policy

### Energy security

**Air quality** – although given that this has been regulated on for a number of years, it was not seen in the same level of importance as the drivers above

Regulation

• Overall policy

### Agreed Barriers and enablers

### Consumer inertia (individual)

- Market acceptance
- Its my money will I take the risk?
- Conservative view point
- Risk averse

### Societal Change

- Lack of belief to move forward
- Will we accept the actions required to make the change
- Do we believe in the key driver and whether there will be concerted action to make it happen
- Scepticism over targets
- Conservative viewpoint / risk averse

### Economic

- Vested interests
- Sweating assets / existing infrastructure
- Timescale / long term investment
- Investment uncertainty technology, regulatory, consumer
- Lack of standards
- Pay back period

### Technology

- Limited data
- uncertainty
- Multiple vectors return and profitability

### Leadership (both political, and business)

- Interdependencies / roadmaps / blockers
- New partnerships across sectors

- Scepticism over targets
- Political Long Term Consistency 5yr term 20 year plan
- Taxation policy
- Technology uncertainty / payback period / 5yr term 20yr problem / investment scale
- Subsidies

## Reference

# Meeting series and tasks that feed into Technology work group meetings as follows

**Shell to provide an outline well to wheel vector template** to be sent to group by 2<sup>nd</sup> June for individual review ahead of the 16<sup>th</sup> june meeting

### Meeting 1 – 16<sup>th</sup> June (Arup 13 Fitzroy St)

### We do not have budget for facilitated meeting at BIS as discussed, so we will run the same format as before.

9,30 arrive for 9,45 start

Morning session to develop system process map

- Review boxes and process lines on Shell donated baseline (this assumes everyone arrives having made notes and we do not need to go through in detail, we are essentially just amending and discussing the teams views)
- Map on the key drivers as identified in our first meeting to see how they will affect the baseline
- Map on the barriers and enablers
- Final review and agreement of generic roadmap

Afternoon session to develop fuel vectors

- Extract from NAIGT roadmaps the key vectors and agree these with the group
- For each vector open discussion on critical factors that affect the timing or delivery of each vector
- Agree actions for individual members of the team should further data need to be collected or if a factor is not completely understood or potentially not accurate

Wrap up session to agree next stage and action of the meeting

Aim to finish at 4pm

## Between 1st and 2nd meetings John / Robin tidy up our work and issue as draft for comment

John / Robin present initial finding to the technology working group (provisional dates still under review but planned 2<sup>nd</sup> week July)

### Meeting 2 – 22<sup>nd</sup> July (Any volunteers for venue?)

9,30 arrive for 9,45 start

Morning Session

- Feedback for technical working group discussed
- Review work undertaken so far in light of comments
- Discuss what needs to be undertaken next and whether our plan is still valid

### Afternoon session

- If all is OK, then proposal is to test the process with the first vector identified by the technology working group. At the present time, the original feedback from this group was that we should be testing against Electrification of Transport, so this should be our going in assumption, but we should also be prepared to review and test another vector.
- Unlikely that we will be able to test the process in an afternoon, so it is likely we will need to have a series of actions at the end of this session that individuals have to take away and develop the first vector detail
- Review how we are going and whether we feel this is still the right process

### Aim to finish at 4pm

### Most members will have actions between meetings 2 and 3 but there is no planned meeting of tech group or Auto council so no feedback or direction is expected during this period

### Meeting 3 – 22<sup>nd</sup> Sept. (Any volunteers for venue?)

9,30 arrive for 9,45 start

### Morning session

- Review EoT vector development
- Add in any actions or data developed between the meetings

- Final check
- Test 2<sup>nd</sup> vector this should ideally be the second choice of the technology working group, but we may also need to consider whether we test something that we all agree is radically different to the first vector

Afternoon Session

- Continue with second vector
- Agree actions as before on how we complete this vector
- Develop outline report skeleton for short report to tech working group
- Agree actions for contributors / writers / coordinator of sections of the short report

### Aim to finish at 4pm

Members who have sections to write will be expected to deliver an outline within two weeks, this can be collated into a draft for circulation one week before the 4<sup>th</sup> meeting by agreed coordinator.

We will all need to read the draft ahead of the 4<sup>th</sup> meeting so we can actively work on this in the meeting.

### Meeting 4 – 14<sup>th</sup> Oct. (Any volunteers for venue?)

9,30 arrive for 9,45 start

Morning session

- Short report reviewed, comments made and agree changes / issues that need to be resolved
- Agree responsibility for changes and issue
- Develop key messages that we feel are critical in the work we have undertaken that we wish highlighted in the presentation to tech group
- Agree format for presentation based on these key messages

### Afternoon Session

 Discuss next stages and recommendations beyond short report and process map

Aim to finish at 4pm

### John / Robin to prepare slides with key messages

Short report completed and circulated by 1<sup>st</sup> week nov.

Final comments and rework by 2<sup>nd</sup> week nov.

Present report and slides to Tech working group last week nov – TBD with any comment on further work streams

Feedback to the group by email end Nov and decision by mail on next steps.