



Frequently Asked Questions for Decarbonisation Research for Industry, Ventures and Enterprise (DRIVE)

S/ N	Question	Response
OVERVIEW		
1.	What is the objective of DRIVE?	<p>The DRIVE scheme aims to advance the development of low-carbon technologies to address decarbonisation challenges specific to Singapore's power and industrial sectors.</p> <p>The scheme enables companies ("Company Applicants") to initiate and design decarbonisation research projects in collaboration with local institutes of higher learning and research institutions ("public research performers") in Singapore. The Advanced Energy and Decarbonisation Office (AEDO) will provide co-funding support for research costs incurred by public Research Performers.</p>
2.	Who awards/administers DRIVE funding?	The DRIVE scheme is governed by AEDO as the Implementing Agency (IA), working together with Singapore Economic Development Board (EDB) and Energy Market Authority (EMA) as sector leads for industry and power decarbonisation focus areas respectively.
3.	When does the DRIVE grant process start, and when will we be notified of the outcome?	<p>The DRIVE scheme accepts applications <u>on a rolling basis throughout the year</u>.</p> <p>We aim to review and process applications as quickly as possible. The time required may vary depending on:</p> <ul style="list-style-type: none"> • Completeness and clarity of the proposal • Complexity and scale of the proposed project • Responsiveness to queries and/or any request for deviations
4.	Are there any guidelines that the awarded project should follow?	Projects should adhere to the RIE Grant Rules and RIE Grant Terms & Conditions (T&Cs), which have been included in the DRIVE application package on AEDO's website (https://www.aedo.gov.sg/funding/drive). If the proposal is approved, these documents will also be included as part of the Letter of Award (LOA). AEDO will communicate updates to the Company Applicant(s) and public Research Performer(s) if there are any changes to these documents.
SCOPE OF PROJECT		
5.	Are there any restrictions on the topics or technology readiness level (TRL) of technologies supported through DRIVE?	<p>Funding under the DRIVE scheme only supports the development of technologies that fall under the Decarbonisation Grand Challenge (DGC) focus areas. (https://www.aedo.gov.sg/focus-areas/)</p> <p>The proposed project should address the identified industry needs, and have a technology readiness level (TRL) between low to medium (i.e. TRL 1 to 6). Please refer to proposal template for more information on TRL.</p>

6.	Who should establish the work scopes of the DRIVE proposals [i.e. Company Applicant(s) or public Research Performer(s)]?	<p>The problem statements should be identified and established by the Company Applicant(s), and the corresponding work scope should be jointly agreed upon between the Company Applicant(s) and public Research Performer.</p> <p>For DRIVE proposals involving more than one Company Applicant, Company Applicants must agree on a common problem statement. They must also confirm their willingness to collaborate with one another and the public Research Performer, to contribute to meet the proposal's research objective.</p>
7.	What are the expected outcomes from DRIVE proposals, if awarded?	<p>Expected outcomes include:</p> <ul style="list-style-type: none"> • Advancement in the deployment potential of decarbonisation technology • Demonstration of feasibility of a decarbonisation technology
8.	Do technologies within the proposals need to be very novel/nascent?	No. Companies with credible proposals that are able to address the DGC focus areas are encouraged to apply.
9.	What is the recommended duration and budget for a DRIVE project?	It is recommended that the duration of DRIVE projects be no more than 36 months and DRIVE funding be no more than \$2M/year, although exceptions may be granted on a case-by-case basis.
INDUSTRY-RESEARCHER COLLABORATION		
10.	Can foreign companies participate in DRIVE?	<p>Yes. Foreign companies including those that do not have an established local presence in Singapore, are welcome to participate in DRIVE, but the research project and activities must be done in Singapore (i.e. the Total Research and Innovation Expenditure (TRIE) provided by the Company Applicant(s) must be accrued in Singapore).</p> <p>TRIE refers to the total investment (comprising cash and in-kind) committed by a private company for R&D in Singapore.</p> <p>TRIE must be directly related to the DRIVE project and incurred in Singapore. Additionally, TRIE commitments must be documented in an RCA between the performer(s) and the Industry Partner(s) Company Applicant(s) and public Research Performer(s).</p> <p>Please refer to Q13 for the minimum TRIE contribution and Q23 for list of qualifying and non-qualifying TRIE.</p>
11.	I am a public Research Performer interested in applying for DRIVE funding. However, I am unable to find a Company Applicant. What should I do?	You may reach out to your Institute's Research Office and/or Innovation & Enterprise (IEO) / Technology Transfer Office (TTO) during the scoping stage to understand i) key industry trends, ii) market landscape, and iii) identify potential Company Applicants/users of their technology. You may also wish to consider other funding opportunities that do not have this condition.
12.	When should the Research Collaboration Agreement (RCA) between the public Research Performer and the Company Applicant(s) be signed and submitted?	<p>Broadly, the stages of the DRIVE application, and discussions between the Company Applicant(s) and the public Research Performer(s) involved, are as follows:</p> <ul style="list-style-type: none"> • Project scoping to define the problem statements and research objectives • Initial discussion on IP arrangements and contributions from all

		<p>parties involved, e.g. research expertise, estimation of resources required, background IP</p> <ul style="list-style-type: none">• Development of the Full Proposal, and submission by the Company Applicant(s) [Proposal template found on the DRIVE website (https://www.aedo.gov.sg/funding/drive)]• Issuance of In-Principle Approval (IPA) for successful applications• Submission of RCA within three months from the IPA issuance• Issuance of LOA after RCA has been signed <p>The RCA should document the agreement on (i) the committed TRIE and in-kind contribution and (ii) full Project Milestones, as per the approved proposal and institution’s procedures and requirements.</p> <p>To facilitate smoother conversion from IPA to LOA, Company Applicant(s) and public Research Performer(s) are required to share the draft RCA with AEDO as soon as it is ready for signing. If more time is required to finalise the RCA, the Company Applicant(s) should submit a request for extension via email to AEDO at least 2 weeks before the RCA submission deadline. Otherwise, the IPA will be deemed to have lapsed, and the parties may need to re-apply for DRIVE funding.</p>																				
13.	What is the minimum contribution that the Company Applicant(s) needs to put in?	<p>Proposals should seek to maximise industry contributions. TRIE by the Company Applicant is strongly recommended to be at least 25% of the total project budget (i.e. \$3 DRIVE funding to \$1 TRIE), of which the industry cash component is recommended to be 5% of total project budget.</p> <p>The table below shows how much qualifying TRIE is required from Company Applicant(s) for a S\$3M DRIVE proposal. Please note that S\$3M is not the minimum DRIVE budget amount required, but an example used for the purpose of illustrating the minimum TRIE contribution based on the recommended leverage ratio as stated above.</p> <table><tr><th>Total project budget</th><th>DRIVE funding</th><th>Minimum Qualifying TRIE</th><th>Source of TRIE</th></tr><tr><td colspan="4">Proposal involves only one Company Applicant</td></tr><tr><td>S\$4M</td><td>S\$3M</td><td>S\$1M</td><td>Solely contributed by single Company Applicant</td></tr><tr><td colspan="4">Proposal involves two or more Company Applicants</td></tr><tr><td>S\$4M</td><td>S\$3M</td><td>S\$1M</td><td>Contributed by all Company Applicants; need not be equal amounts as long as the total sum meets the minimum TRIE threshold.</td></tr></table>	Total project budget	DRIVE funding	Minimum Qualifying TRIE	Source of TRIE	Proposal involves only one Company Applicant				S\$4M	S\$3M	S\$1M	Solely contributed by single Company Applicant	Proposal involves two or more Company Applicants				S\$4M	S\$3M	S\$1M	Contributed by all Company Applicants; need not be equal amounts as long as the total sum meets the minimum TRIE threshold.
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14.	Can the Company Applicant's past commitments (e.g. R&D funding / service agreements) with the public Research Performer prior to the commencement of the DRIVE project, be considered as TRIE to the project?	Existing agreements and commitments made prior to the application should not be factored into new proposals seeking DRIVE funding. Service agreements cannot be considered towards TRIE, whether signed before or after project commencement.
APPLICATION & ASSESSMENT		
15.	Where can I download the application template?	All relevant documents and information can be found on AEDO's website (https://www.aedo.gov.sg/funding/drive).
16.	If a proposal gets rejected for DRIVE funding, can it be considered for other funding schemes under AEDO? Is there an internal funneling mechanism?	Applicants may explore alternative funding schemes if their proposals are unsuccessful under DRIVE funding. Applicants will themselves be responsible for submitting applications to other funding schemes.
17.	Is funding guaranteed if a project meets the minimum qualifying criteria and leverage ratio?	No, meeting the minimum qualifying criteria is a prerequisite for consideration, but does not guarantee funding approval. All eligible proposals will be subject to a rigorous evaluation based on the scheme's assessment criteria, assessing the overall project merit , including novelty, technical quality, scalability and commercialisation considerations.
18.	What are the evaluation criteria for DRIVE?	The evaluation criteria for DRIVE are as follows: a) Excellence and novelty of the technology; b) Strategy for technical scale up and pilot; c) Strategy for commercialisation and deployment of the technology; d) Industry partner's suitability or strategic growth plans; e) Techno-economic analysis; and f) Other relevant factors.
19.	Can startups and/or SMEs access other funding schemes while participating in DRIVE?	Yes, startups and/or SMEs may tap on other funding schemes while participating in DRIVE. All past grants received or ongoing grant applications by the Company Applicant(s) should be declared in the Full Proposal, and grant-funded items should not count towards their TRIE contributions under DRIVE.
PROJECT BUDGET		
20.	If an Industry Performer is contributing S\$1M to the project, does that entitle the public Research Performer to S\$3M in funding from DRIVE?	No, DRIVE is not awarded based on a matching ratio. Instead, public Research Performers should request for an appropriate amount based on the project's research and development needs. As such, public Research Performers should have a comprehensive idea of the full project budget, and give due consideration to all other available funding sources. Approval of exact funding amount is subject to the IA's assessment of line items and justifications in the project budget.

21.	Does DRIVE provide for indirect costs (overheads)?	Yes. Performers must include any indirect costs in their DRIVE budget request as separate line items. Funding for indirect costs is subject to approval of the IA and capped at 30% of the direct costs listed in the proposal's budget requested.										
22.	Are non-fundable items allowed to be included in public Research Performer's budget request?	No, non-fundable items are not allowed to be included based on RIE Grant Rules, appended in the application package.										
TOTAL RESEARCH AND INNOVATION EXPENDITURE (TRIE)												
23.	What is qualifying and non-qualifying TRIE?	<div>TRIE, the total investment committed by a private company for R&D in Singapore, can be classified as qualifying and non-qualifying. See below for a non-exhaustive list of qualifying and non-qualifying TRIE examples.</div> <table><tr><th>Qualifying TRIE</th><th>Non-Qualifying TRIE</th></tr><tr><td>Direct cash contributions</td><td>Costs supported by other grants.</td></tr><tr><td>In-kind contributions such as:<ul style="list-style-type: none">Manpower (EOM)Purchased equipment and softwarePurchased materials, consumables and drugsUtilities (e.g. water, electricity, steam) used to directly support DRIVE pilotsCompany-manufactured in-kind (CMIK), where applicable*<p>*Software that is manufactured / sold by the company is not qualifying TRIE, and is regarded as background intellectual property (BIP) from the company.</p></td><td>Manpower costs for researchers not based in Singapore</td></tr><tr><td></td><td>Indirect costs<ul style="list-style-type: none">Non-R&D headcounts (e.g., admin, business, and marketing, etc.)Non-R&D activities and equipment/consumables (e.g., general purpose IT equipment, stationary, office furniture and fitting, etc.)Infrastructure costs (e.g., rent, construction costs, etc.)Non-R&D operating expenses (e.g., courier, local travel, admin, etc.)</td></tr><tr><td></td><td>Others (e.g. service agreements, software manufactured / sold by company, etc)</td></tr></table>	Qualifying TRIE	Non-Qualifying TRIE	Direct cash contributions	Costs supported by other grants.	In-kind contributions such as: <ul style="list-style-type: none">Manpower (EOM)Purchased equipment and softwarePurchased materials, consumables and drugsUtilities (e.g. water, electricity, steam) used to directly support DRIVE pilotsCompany-manufactured in-kind (CMIK), where applicable* <p>*Software that is manufactured / sold by the company is not qualifying TRIE, and is regarded as background intellectual property (BIP) from the company.</p>	Manpower costs for researchers not based in Singapore		Indirect costs <ul style="list-style-type: none">Non-R&D headcounts (e.g., admin, business, and marketing, etc.)Non-R&D activities and equipment/consumables (e.g., general purpose IT equipment, stationary, office furniture and fitting, etc.)Infrastructure costs (e.g., rent, construction costs, etc.)Non-R&D operating expenses (e.g., courier, local travel, admin, etc.)		Others (e.g. service agreements, software manufactured / sold by company, etc)
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24.	How is TRIE tracked?	TRIE realisation is monitored during the annual progress reporting exercise. Public Research Performers are required to submit documentation evidencing cash and in-kind contributions by the Company Applicant(s) to the DRIVE project (e.g. transaction records/receipts for cash, company declaration letter and supporting annexes for in-kind). Please refer to "DRIVE Guidelines for Demonstrating Realisation of Industry Contributions" found in the application package for required supporting documents.										
INTELLECTUAL PROPERTY (IP)												

25.	What is the typical intellectual property (IP) arrangement for a DRIVE funded project?	<p>The usual IP arrangements such as ownership will stand, e.g. solely developed, solely owned (SDSO); jointly developed, jointly owned (JDJO).</p> <p>Company Applicant(s) and public Research Performer(s) must take reference from the National IP Protocol (National IP Protocol Intellectual Property Office of Singapore), and consider non-exclusive IP arrangements with a reasonable option period. DRIVE proposals should demonstrate proper IP management and downstream outcomes, such as licensing income and adoption of new innovations, products or processes, if the project is successful.</p> <p>Company Applicant(s) and public Research Performer(s) are strongly recommended to start IP discussions as early as possible to address potential roadblocks early, especially if IP deviations are anticipated. Please refer to “DRIVE Guidelines on IP Arrangements” provided in the application package for the list of IP guidelines not to be acceded.</p>
26.	Are there any restrictions on the intellectual property (IP) arrangements?	<p>Yes, the following two IP arrangements are strictly not allowed:</p> <ul style="list-style-type: none"> • Ceding ownership rights for solely / jointly-created foreground IP (FIP) to Company Applicant if the Company Applicant has not paid for IP assignment for full ownership and exclusive commercialisation rights. • Granting Company Applicant exclusive commercialisation rights without expecting the Company Applicant to pay for these rights.
POST-AWARD MATTERS		
27.	What is the difference between a major and minor variation request?	Major variation requests generally have a material impact on the project scope, deliverables and/or budget. Public Research Performers may approach their Research Offices for guidance before surfacing the request to AEDO.
28.	What is the minimum submission timeline for variation requests?	<p>Variation requests should be made to AEDO three (3) months before the end of the project term, except for no-cost grant extensions, which should be made before the last six (6) months of the original end of the project term.</p> <p>More details on variations to the Research can be found in the RIE Grant Rules.</p>
29.	How long does the variation request take to process? I want to avoid having retrospective variations.	<p>The time required to process variation requests depends on the nature and number of variations in the request, and the completeness of the supporting documents, e.g. justification and necessary approvals*, mitigation plans and catchup plans, etc.</p> <p>Do note that only approvals from IA and/or iGrants will constitute a formal approval of the project variation.</p> <p>*These refer to approvals from the respective Research Offices, institutional research leadership, Steering Committee / Governing Board / Ethics Committee set up for the Research (if applicable), <u>and</u> the IA.</p>
30.	Are retrospective variations allowed? Why do scope change requests take longer	No, retrospective or late requests to AEDO will not be allowed, unless there is compelling justification.

	to process and how can retrospective requests be avoided?	<p>The processing time would depend on the nature of the variation request and the completeness of information provided. More complex or major variation requests (e.g. scope change requests) may require longer processing time.</p> <p>Either party should inform AEDO of their intention to change scope or submit any variation requests as soon as they are aware of the potential changes. Other details such as project or milestone timeline(s), justifications and supporting endorsements should also be provided. The party is strongly advised to ensure their submission of the variation request and supporting documents to AEDO is as complete as possible, to minimise back-and-forth clarifications, which would delay the processing time of the variation request.</p> <p>If either party has proceeded with a project variation before AEDO's approval is obtained, AEDO may claw back the DRIVE funding that was used to carry out the unapproved work.</p>
31.	Is a grant extension required for the project term to match the RCA term?	No, grant extension is not required as long as the project term falls within the duration of the RCA term. Therefore, the RCA term may end later than the project.
32.	What are the reporting requirements?	<p>Performers are required to submit:</p> <ul style="list-style-type: none"> • Annual Progress Reports (APR) • Stage progress reports, where applicable • Final Report upon project completion <p>Performers are required to undergo:</p> <ul style="list-style-type: none"> • Mid-term Review (MTR) • Final Review <p>Performers may also be requested to submit progress reports and attend ad-hoc review meetings at AEDO's discretion.</p>
OTHERS		
33.	Are applications for follow-on funding from DRIVE allowed?	<p>Yes, Applicants are encouraged to apply for follow-on funding with AEDO, e.g. to support the next phase of a successful project.</p> <p>Applicants are to submit follow-on funding proposals as new applications. For follow-on funding, Applicants should demonstrate (i) a good track record, (ii) a significant delta achieved under the initial DRIVE project, and (iii) clearly differentiated objectives for the follow-on DRIVE project.</p>
34.	Who can I reach out to for any queries that were not addressed?	Applicants should first contact their institution's Research Office for advice before sending their queries to AEDO via contactus@aedo.gov.sg .