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July 31, 2020

**Includes [REDACTED] Business Information [REDACTED]**

NHTSA Administrator, NOA-010  
National Highway Traffic Safety Administration  
1200 New Jersey Ave., West Building  
Washington, DC 20590

**RE: MY2020 Mid-Model Year Corporate Average Fuel Economy Report/Subaru**

Dear Administrator:

Pursuant to 49 CFR Part 537, North American Subaru, Inc (“NASI”), on behalf of Subaru Corporation (“SBR”) and Subaru of America, Inc (“SOA”), submits the following:

**537.5 (c)(1) 2020 Mid-Model Year Report–Passenger Automobiles & Light Trucks**

(c)(2) Subaru Corporation

(c)(3) [REDACTED]

(c)(4) Submitted by NHTSA secure email, [cafe@nhtsa.gov](mailto:cafe@nhtsa.gov), with [REDACTED] business information and request for [REDACTED] (enclosed)

(c)(5) 2020 Model Year Passenger Cars (Import) and 2020 Model Year Light-Truck Fleets

If there are any issues or questions regarding this submission, please do not hesitate to contact me at [REDACTED].

Sincerely,

[REDACTED]

**Subaru Passenger Automobiles (Import and Domestic):** Pursuant to 49 CFR Part 537.7(a)(1), NASI submits the following:

**49 CFR 537.7(b)(1) and 537.7(c)(2):**

Projected average fuel economy per 49 CFR 537.7(b)(1) and Combined fuel economy, projected sales, and total sales per 49 CFR 537.7(c)(2): **Subaru Passenger Automobiles (Import)**

Model type code	Model Type	Combined Fuel Economy	Projected Sales Volume By Model Type
1	BRZ 2.0L 6MT	31.4568	2400
2	BRZ 2.0L 6AT	36.9200	1140
3	IMPREZA 4-Door 2.0L 5MT	35.1140	888
4	IMPREZA 5-Door 2.0L 5MT	35.3520	2016
5	IMPREZA 4-Door 2.0L CVT	42.8747	16140
6	IMPREZA 5-Door 2.0L CVT	41.9531	39624
8	LEGACY 2.5L CVT	40.8380	36600
13	LEGACY 2.4L DI Turbo CVT	36.0645	3400
24	WRX 2.0L DI Turbo 6MT	30.5581	19644
25	WRX 2.0L DI Turbo CVT	26.8436	4286
26	WRX STI 2.5L Turbo 6MT	24.1367	10001
27	IMPREZA SPORT 5-Door 2.0L 5MT	33.6471	1716
28	IMPREZA SPORT 5-Door 2.0L CVT	41.1536	11772
29	IMPREZA SPORT 4-Door 2.0L 5MT	35.0701	1044
30	IMPREZA SPORT 4-Door 2.0L CVT	41.4234	6888
31	BRZ tS 2.0L 6MT	30.3042	300
		Total	157859
		<b>Projected Average Fuel Economy</b>	<b>37.3</b>

**49 CFR 537.7(b)(2):** No running changes which may affect the projected average fuel economy will be performed on 2020 vehicles in the future.

**49 CFR 537.7(b)(3):** Projected required fuel economy determined in accordance with 49 CFR 531.5(c) and based upon the projected sales figures provided per 49 CFR 537.7(c)(2):

- Passenger Automobiles (Import): **44.9 mpg**

**49 CFR 537.7(b)(4):** No running changes which may affect the projected final required fuel economy will be performed on 2020 vehicles in the future.

**49 CFR 537.7(b)(5):** NASI believes that the projections provided above, pursuant to 49 CFR Part 537.7(b)(1) and 49 CFR Part 537.7(b)(3), sufficiently represents the manufacturer's average and required fuel economy for the 2020 model year for the purposes of the Act.

**537.7(c)(1), (c)(3)-(c5):** Please see attachment page no.'s 6-9.

**537.7(c)(7):**

**Air Conditioning efficiency improvements**

- Closed-loop Control
- Variable-displacement Compressor
- Internal heat exchanger
- Oil Separator

**Off-cycle technologies**

- Active Aerodynamic Improvements (Active Grill Shutter)
- High Efficiency Exterior lights (LED)
- Glass or Glazing
- Engine Start/Stop
- Active transmission warm-up
- Active seat ventilation
- High efficiency alternator

**Subaru Light Trucks:** Pursuant to 49 CFR Part 537.7(a)(2), NASI submits the following:

**49 CFR 537.7(b)(1) and 537.7(c)(2):** Projected average fuel economy per 49 CFR 537.7(b)(1) and Combined fuel economy, projected sales, and total sales per 49 CFR 537.7(c)(2): **Subaru Light Trucks**

Model type code	Model Type	Combined Fuel Economy	Projected Sales Volume By Model Type
14	CROSSTREK 2.0L 6MT	33.1932	9636
15	CROSSTREK 2.0L CVT	40.5464	110472
18	FORESTER 2.5L CVT	38.8154	189898
19	OUTBACK 2.5L CVT	38.9498	148000
21	OUTBACK 2.4L DI Turbo CVT	34.4887	52000
33	ASCENT 2.4L DI Turbo CVT	30.2760	24805
34	ASCENT Limited/Touring 2.4L DI Turbo CVT	29.0146	55198
35	CROSSTREK HYBRID	87.7321	3600
		Total	593609
		<b>Projected Average Fuel Economy</b>	<b>37.1</b>

**49 CFR 537.7(b)(2):** No running changes which may affect the projected average fuel economy will be performed on 2020 vehicles in the future.

**49 CFR 537.7(b)(3):** Projected required fuel economy determined in accordance with 49 CFR 533.5(i) and based upon the projected sales figures provided under 49 CFR 537.7(c)(2):

- Light Trucks: **35.4 mpg**

**49 CFR 537.7(b)(4):** No running changes which may affect the projected final required fuel economy will be performed on 2020 vehicles in the future.

**537.7(b)(5):** NASI believes that the projections provided above, pursuant to 49 CFR Part 537.7(b)(1) and 49 CFR Part 537.7(b)(3), sufficiently represents the manufacturer's average and required fuel economy for the 2020 model year for the purposes of the Act.

**537.7(c)(1), (c)(3)-(c5):** Please see attachment page no.'s 6-10.

**537.7(c)(7):**

**Air Conditioning efficiency improvements**

- Closed-loop Control
- Variable-displacement Compressor
- Blower motor controls
- Internal heat exchanger
- Oil Separator

**Off-cycle technologies**

- Active Aerodynamic Improvements (Active Grill Shutter)
- High Efficiency Exterior lights (LED)
- Glass or Glazing
- Engine Start/Stop
- Active transmission warm-up
- Active seat ventilation
- High efficiency alternator
- Brushless motor

49 CFR Table 537.7 (b)(3) & (c)(3) - Technical Information

Light Truck

Model Type Code	Mode Type	Passenger-Carrying Volume (cubic ft.)	Cargo-Carrying Volume (cubic ft.)	Base Tire	Track Width - Front (in)	Track Width - Rear (in)	Track Width - Average (in)	Wheelbase (in)	Footprint (feet^2)	Function Described in 523.5(a)(5)	Temporary Living Quarters	Frontal Area (sq. ft.)	Road Load Horse Power @50 mph (hp)	Optional Equipment
14	CROSSTREK 2.0L 6MT	100.9	20.8	225/60R17	61.0	61.2	61.1	104.9	44.5	No	No	26.6	13.8	---
15	CROSSTREK 2.0L CVT												12.6	
18	FORESTER 2.5L CVT	111.9	31.1	225/60R17	61.6	61.8	61.7	105.1	45.0			28.5	13.6	
19	OUTBACK 2.5L CVT	108.5	32.6	225/65R17	61.8	62.8	62.3	108.1	46.8			27.3	13.0	
21	OUTBACK 2.4L DI Turbo CVT	108.5	32.6	225/60R18	61.8	62.8	62.3	108.1	46.8			27.3	13.1	
33	ASCENT 2.4L DI Turbo CVT	153.5	17.8	245/60R18	64.4	64.2	64.3	113.8	50.8			31.8	15.8	
34	ASCENT Limited/Touring 2.4L DI Turbo CVT	153.5	17.8	245/50R20	64.4	64.2	64.3	113.8	50.8			31.8	16.3	
35	CROSSTREK HYBRID (Plug-In Hybrid)	100.8	16.1	225/55R18	61.2	61.6	61.4	104.9	44.7			26.6	13.6	

Import Passenger Car

Model Type Code	Mode Type	Interior Volume Index (cubic ft.)	Body Style	Base Tire	Track Width - Front (in)	Track Width - Rear (in)	Track Width - Average (in)	Wheelbase (in)	Footprint (feet^2)	Function Described in 523.5(a)(5)	Temporary Living Quarters	Frontal Area (sq. ft.)	Road Load Horse Power @50 mph (hp)	Optional Equipment	
1	BRZ 2.0L 6MT	83.4	2D Coupe	215/45R17	59.8	60.6	60.2	101.2	42.3	No	No	21.4	11.7	---	
2	BRZ 2.0L 6AT	83.4	2D Coupe	215/45R17									11.4		
3	IMPENZA 4-Door 2.0L 5MT	112.1	Sedan	205/50R17	60.6	60.8	60.7	105.1	44.3			25.1	12.3		
4	IMPENZA 5-Door 2.0L 5MT	121.7	Wagon	205/55R16								25.2	12.4		
5	IMPENZA 4-Door 2.0L CVT	112.1	Sedan	205/55R16								25.1	11.4		
6	IMPENZA 5-Door 2.0L CVT	121.7	Wagon	205/55R16								25.2	11.7		
27	IMPENZA SPORT 5-Door 2.0L 5MT	121.7	Wagon	225/40R18								25.2	13.1		
28	IMPENZA SPORT 5-Door 2.0L CVT	121.7	Wagon	225/40R18											12.3
29	IMPENZA SPORT 4-Door 2.0L 5MT	112.1	Sedan	225/40R18								25.1	12.6		
30	IMPENZA SPORT 4-Door 2.0L CVT	112.1	Sedan	225/40R18											12.1
8	LEGACY 2.5L CVT	120.3	Sedan	225/55R17											25.6
13	LEGACY 2.4L DI Turbo CVT	120.3	Sedan	225/50R18								11.5			
24	WRX 2.0L DI Turbo 6MT	108.9	Sedan	235/45R17	60.2	60.6	60.4	104.3	43.7			25.7	14.0		
25	WRX 2.0L DI Turbo CVT	108.9	Sedan	245/40R18								13.8			
26	WRX STI 2.5L Turbo 6MT	108.9	Sedan	245/35R19								15.8			
31	BRZ 1S 2.0L 6MT	83.4	2D Coupe	215/40R18								21.4	13.0		

**2020MY SUBARU Passenger Automobiles CAFE Standard -July 23, 2020**

**Model year dependent parameters used to calculate**

<b>MFR</b>	<b>Model Year</b>	<b>Compliance Category</b>	<b>MFR Final Reformed CAFE Standard (mpg)</b>	<b>Unrounded Reformed CAFE Standard Discrepancy Value (mpg)</b>	<b>Mfr Calculated Reformed CAFE Standard (4 decimal places) (mpg)</b>	<b>a:</b>	<b>b:</b>	<b>c:</b>	<b>d:</b>	<b>Total Production</b>
<b>SUBARU</b>	<b>2020</b>	<b>Import Passenger Car</b>	<b>44.9</b>	<b>0</b>	<b>44.8593</b>	<b>48.74</b>	<b>36.47</b>	<b>0.0004603</b>	<b>0.001643</b>	<b>157859</b>

The required fuel economy level (Domestic) = Not applicable

Footprint informations for calculating the required fuel economy (Import)

Model Type Index	Carline MFR Code	Division Code	Carline code	Vehicle Class [GHG]	Import /Domestic [CAFE]	Carline Name	Basic Engine Index	Verify Transmission Configuration Code	Transmission Class Name	Model Type Footprint Description	Wheel base (inches)	Front Track Width (inches)	Rear Track Width (inches)	Avg Track Width (inches)	Footprint (square feet)	Footprint Final Model Year Production Units	MFR Footprint Target FE Value (mpg rounded to two decimal places)
1	FJX	1	10	LDV	Import	BRZ	1	81	M6	2.0L NA model	101.2	59.8	60.6	60.2	42.3	2400	47.36
2	FJX	1	10	LDV	Import	BRZ	2	17	S6	2.0L NA model	101.2	59.8	60.6	60.2	42.3	1140	47.36
3	FJX	1	45	LDV	Import	IMPREZA 4-Door	3	78	M5	2.0L NA model	105.1	60.6	60.8	60.7	44.3	888	45.38
5	FJX	1	45	LDV	Import	IMPREZA 4-Door	3	79	CVT	2.0L NA model	105.1	60.6	60.8	60.7	44.3	16140	45.38
4	FJX	1	55	LDV	Import	IMPREZA 5-Door	3	78	M5	2.0L NA model	105.1	60.6	60.8	60.7	44.3	2016	45.38
6	FJX	1	55	LDV	Import	IMPREZA 5-Door	3	79	CVT	2.0L NA model	105.1	60.6	60.8	60.7	44.3	39624	45.38
29	FJX	1	50	LDV	Import	IMPREZA SPORT 4Door	3	78	M5	2.0L NA model	105.1	60.6	60.8	60.7	44.3	1044	45.38
30	FJX	1	50	LDV	Import	IMPREZA SPORT 4Door	3	79	CVT	2.0L NA model	105.1	60.6	60.8	60.7	44.3	6888	45.38
27	FJX	1	85	LDV	Import	IMPREZA SPORT 5Door	3	78	M5	2.0L NA model	105.1	60.6	60.8	60.7	44.3	1716	45.38
28	FJX	1	85	LDV	Import	IMPREZA SPORT 5Door	3	79	CVT	2.0L NA model	105.1	60.6	60.8	60.7	44.3	11772	45.38
8	FJX	1	65	LDV	Import	LEGACY	4	75	CVT	2.5L NA model	108.3	62.2	63.4	62.8	47.2	36600	42.79
13	FJX	1	65	LDV	Import	LEGACY	5	27	CVT	2.4L Turbo model	108.3	62.2	63.4	62.8	47.2	3400	42.79
24	FJX	1	25	LDV	Import	WRX	6	72	M6	2.0L Turbo model	104.3	60.2	60.6	60.4	43.7	19644	45.96
25	FJX	1	25	LDV	Import	WRX	6	26	CVT	2.0L Turbo model	104.3	60.2	60.6	60.4	43.7	4286	45.96
26	FJX	1	25	LDV	Import	WRX (STI)	7	71	M6	2.5L Turbo model	104.3	60.2	60.6	60.4	43.7	10001	45.96
31	FJX	1	11	LDV	Import	BRZ tS	1	81	M6	2.0L NA model	101.2	59.8	60.6	60.2	42.3	300	47.36

- Method of measuring wheelbase & track width and calculating vehicle footprint : SAE J1100

**Model year dependent parameters used to calculate target**

<b>MFR</b>	<b>Model Year</b>	<b>Compliance Category</b>	<b>MFR Final Reformed CAFE Standard (mpg)</b>	<b>Unrounded Reformed CAFE Standard Discrepancy Value (mpg)</b>	<b>Mfr Calculated Reformed CAFE Standard (4 decimal places) (mpg)</b>	<b>a:</b>	<b>b:</b>	<b>c:</b>	<b>d:</b>	<b>e:</b>	<b>f:</b>	<b>g:</b>	<b>h:</b>	<b>Total Production</b>
<b>SUBARU</b>	<b>2020</b>	<b>Light Duty Truck</b>	<b>35.4</b>	<b>0</b>	<b>35.355</b>	39.11	25.25	0.000514	0.004494	35.41	25.25	0.0004546	0.009603	593609

The required fuel economy level (Domestic) = Not applicable

Footprint informations for calculating the required fuel economy (Import)

Model Type Index	Carline MFR Code	Division Code	Carline code	Vehicle Class [GHG]	Carline Name	Basic Engine Index	Verify Transmission Configuration Code	Transmission Class Name	Model Type Footprint Description	Wheel base (inches)	Front Track Width (inches)	Rear Track Width (inches)	Avg Track Width (inches)	Footprint (square feet)	Footprint Final Model Year Production Units	MFR Footprint Target FE Value (mpg rounded to two decimal places)
14	FJX	1	35	LDT	CROSSTREK	1	7	M6	2.0L NA model	104.9	61.0	61.2	61.1	44.5	9636	36.54
15	FJX	1	35	LDT	CROSSTREK	1	23	CVT	2.0L NA model	104.9	61.0	61.2	61.1	44.5	110472	36.54
18	FJX	1	95	LDT	FORESTER	2	24	CVT	2.5L NA model	105.1	61.6	61.8	61.7	45.0	189898	36.20
19	FJX	1	70	LDT	OUTBACK	2	76	CVT	2.5L NA model	108.1	61.8	62.8	62.3	46.8	148000	35.03
21	FJX	1	70	LDT	OUTBACK	3	74	CVT	2.4L Turbo model	108.1	61.8	62.8	62.3	46.8	52000	35.03
33	FJX	1	100	LDT	ASCENT	4	83	CVT	2.4L Turbo model	113.8	64.4	64.2	64.3	50.8	24805	32.67
34	FJX	1	105	LDT	ASCENT Limited/Touring	4	83	CVT	2.4L Turbo model	113.8	64.4	64.2	64.3	50.8	55198	32.67
35	FJX	1	41	LDT	CROSSTREK HYBRID	5	84	CVT	2.0L PHEV	104.9	61.2	61.6	61.4	44.7	3600	36.40

- Method of measuring wheelbase & track width and calculating vehicle footprint : SAE J1100



**(1)Light Truck (LT)**

Model type code	Model Type	Model Type City FF	Model Type Hwy FF	Model Type Comb FF	Projected Sales
14	CROSSTREK 2.0L 6MT	28.6000	41.3000	33.1932	9636
15	CROSSTREK 2.0L CVT	35.8900	48.1877	40.5464	110472
18	FORESTER 2.5L CVT	33.9052	47.1637	38.8154	189898
19	OUTBACK 2.5L CVT	33.8826	47.6617	38.9498	148000
21	OUTBACK 2.4L DI Turbo CVT	29.8000	42.7000	34.4887	52000
33	ASCENT 2.4L DI Turbo CVT	26.0425	37.7830	30.2760	24805
34	ASCENT Limited/Touring 2.4L DI Turbo CVT	25.0000	36.1000	29.0146	55198
35	CROSSTREK HYBRID 2.0L CVT	90.1387	84.9598	87.7321	3600

Category	Projected Sales	Unrounded Unadjusted	-	CAFE (mpg)	CAFE Standard (mpg)	Credit/Debit
LT	593609	37.1303	-	37.1	35.4	10,328,797

**(2)Passenger Automobile (PA) Import & Domestic**

Model type code	Model Type	Model Type City FF	Model Type Hwy FF	Model Type Comb FF	Projected Sales
1	BRZ 2.0L 6MT	26.5601	40.6069	31.4568	2400
2	BRZ 2.0L 6AT	31.3000	47.3000	36.9200	1140
3	IMPENZA 4-Door 2.0L 5MT	29.8000	44.9000	35.1140	888
4	IMPENZA 5-Door 2.0L 5MT	30.3000	44.4000	35.3520	2016
5	IMPENZA 4-Door 2.0L CVT	37.0911	52.9697	42.8747	16140
6	IMPENZA 5-Door 2.0L CVT	36.2808	51.8636	41.9531	39624
8	LEGACY 2.5L CVT	35.0207	51.2410	40.8380	36600
13	LEGACY 2.4L DI Turbo CVT	30.4000	46.7000	36.0645	3400
24	WRX 2.0L DI Turbo 6MT	26.0562	38.7385	30.5581	19644
25	WRX 2.0L DI Turbo CVT	22.9000	34.0000	26.8436	4286
26	WRX STI 2.5L Turbo 6MT	20.5731	30.6190	24.1367	10001
27	IMPENZA SPORT 5-Door 2.0L 5MT	28.6000	42.9000	33.6471	1716
28	IMPENZA SPORT 5-Door 2.0L CVT	35.5000	51.1000	41.1536	11772
29	IMPENZA SPORT 4-Door 2.0L 5MT	30.0000	44.2000	35.0701	1044
30	IMPENZA SPORT 4-Door 2.0L CVT	35.4000	52.3000	41.4234	6888
31	BRZ tS 2.0L 6MT	25.7000	38.8000	30.3042	300

Category	Projected Sales	Unrounded Unadjusted CAEE(mpg)	Unrounded Adjusted CAEE(mpg)	CAFE (mpg)	CAFE Standard (mpg)	Credit/Debit	2020MY Minimum standard (mpg)
PA Import	157859	37.0569	37.3197	37.3	44.9	-11,934,140	-
PA Domestic	0	#VALUE!	0.0000	0.0	---	#VALUE!	40.9